

Why Improvements Are Needed

It's commonplace when discussing public policy needs and priorities to talk of "gaps" and related "imperatives." The focus of this report is on one of the most critical gaps and one of the highest-stakes imperatives we face as a state.

A Brave New World

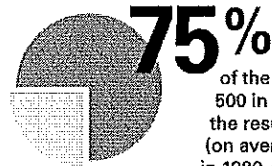
Ohioans must acknowledge that we're living in a brave new world of massive, rapid and often disruptive technological change and advancement, and that the jobs of tomorrow will be increasingly technology-heavy. Many of today's jobs were not even imagined 20 years ago. Following are a few indicators of the challenge Ohio faces to make sure every Ohioan has the knowledge and skills needed to succeed in the 21st century workplace, and every Ohio business can find the skilled, adaptable workers they need to compete and thrive globally:



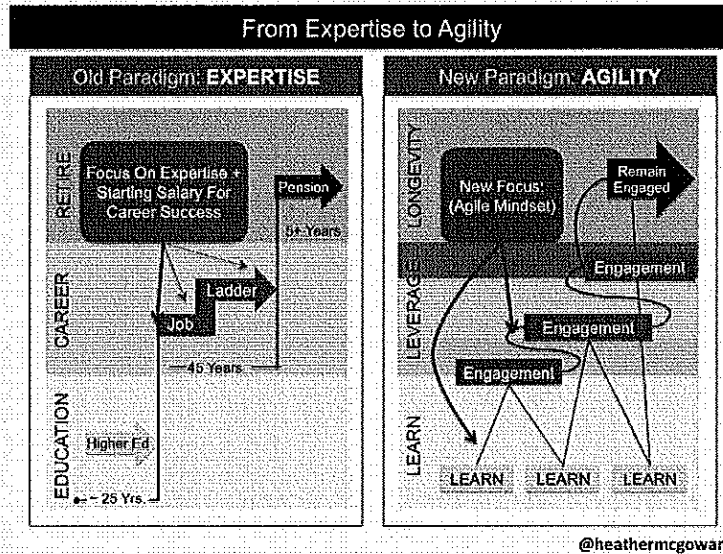
of jobs [total U.S. employment] could be phased out in the coming years due to technological advances. Labor supply is shifting from middle-income manufacturing jobs to low-income service occupations. According to one study, "... as technology races ahead, low-skill workers will reallocate to tasks that are non-susceptible to computerization – i.e., tasks requiring creative and social intelligence. For workers, to win the race, however, they will have to acquire creative and social skills.¹



of secondary students are predicted to work in jobs that do not yet exist. This creates a major challenge for designing curriculum in education, training and retraining programs, as well as a critical need for accessible, flexible, lifelong learning resources. We know, however, that most future jobs safe from the danger of automation will necessarily put a premium on skills such as the ability to think creatively and to find, frame and solve problems.²



of the companies expected to be listed on the S&P 500 in 2027 have yet to be established. This is in part the result of shrinking lifespans for companies, from (on average) 68 years on average in 1958, to 25 years in 1980, to 18 years in 2012.³



The Case for Design Learning

"Design learning" speaks to a potential shift in focus for future workforce education and training, from simply transferring existing knowledge to students to focusing on the processes of entrepreneurial learning and creativity:

"The truth is that we can no longer afford to focus on graduating learners armed only with predetermined skills and (already existing) knowledge. The workforce is becoming far too global, too digital, and increasingly too self-employed. We must instead refocus on cultivating creativity, to include not only problem solving, but also problem finding and problem framing. ...

"Design learning is a nascent field that should be codified and taught in schools as a capstone to learning – beginning as early as grade school. Rather than assuming the purpose of education is simply the transfer of fixed knowledge, design learning facilitates the development of the entrepreneurial dispositions and skills necessary to adapt to rapid social and technological change. Indeed, it is our view that education has to pivot from professional training to preparing individuals to innovate within new and emerging fields.

"Education has traditionally prepared individuals for work, but work is now changing too quickly for the latest professional skills to be readily translated into curriculum. The value of design learning is that it provides the right methodology for this changing reality. More important it mirrors the iterative learning and solution building that characterizes the world of work after schooling. ...

"Rather than transferring a fixed body of language and practices from experts to amateurs, design learning focuses instead on developing a learner's capacity to explore, make sense, and craft new innovation on their search for new opportunities. In this way, design learning is a core educational literacy that prepares individuals to creatively adapt to change."

Source: Daniel Araya and Heather McGowan, "Education and Accelerated Change: The Imperative for Design Learning," Brown Center Chalkboard, Brookings, September 9, 2016

Disconnect Between Business and Education

In a world where the majority of jobs are technology-intensive and require some level of technical knowledge and skills, career training is an even more important and more viable pathway to occupational success. However, disconnects do exist in the delivery of career education and training. For example, the New Skills for Youth Survey, a 2016 statewide poll of Ohioans conducted by the Ohio Department of Education (ODE) and drawing more than 12,000 responses, provided useful insights⁴ on stakeholder views of career education:

- The top reason students cite for not engaging in career-focused coursework is that they don't know enough about the options available to them. Educators feel like they are providing a wide range of options to students in terms of career preparation; conversely, students and parents don't feel as though children are receiving career preparation in school.
- Many K-5 teachers do not see career preparation as part of their jobs as educators. About 20 percent of K-5 teachers do not incorporate career preparation in their lessons, with many more indicating they teach primary grades, and careers should not be part of discussion at the primary school level.
- Only 39 percent of school and district administrators agree that teachers in their schools feel confident integrating career content into their courses, and only 56 percent of teachers themselves are confident integrating career content into their courses.
- About 70 percent of parents who responded to the survey state that their students would benefit from more career-focused options in their schools; however, when educators are asked whether they think students and parents are interested in career-focused options, only 27 percent believe students are interested, and 24 percent believe parents are interested.

These projections and survey responses point clearly to a need for system-wide transformation of workforce education and training strategies and programs.

A Need for Greater Alignment and Attainment

To win the global competition for business investment and jobs, Ohio must develop and attract individuals with knowledge, skills, competencies and credentials that meet the needs of employers, especially those seeking to fill in-demand jobs. Of particular concern is the fact that Ohio currently has a substantial shortage of working-age adults with the degrees and credentials required to be successful in the labor market – in other words, a gap between employer expectations and worker capabilities.

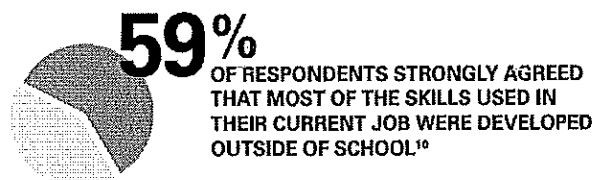
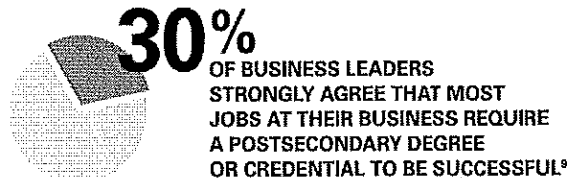
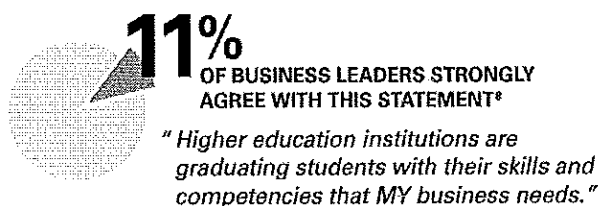
We face a large and serious challenge. According to the Georgetown Center on Education and the Workforce, 64 percent of Ohio jobs in 2020 will require postsecondary degrees or credentials.⁵ A new Lumina Foundation report shows, however, that just 43.2 percent of working-age adults in Ohio have a postsecondary certificate or degree,⁶ which is slightly below the nation's overall postsecondary attainment rate of 45.3 percent. To produce the number of highly skilled workers with postsecondary credentials required to meet the needs of employers, Ohio will need to produce, by 2025, an estimated 1.7 million more adults with high-quality postsecondary certificates or degrees.

It's a simple matter of supply and demand: Employers seek workers with specific knowledge, skills and competencies of value in the marketplace; unfortunately, employers tell us, many job-seekers lack those skills. This is true for large numbers of job-seekers entering the workforce, incumbent workers seeking to advance in their careers, and displaced workers whose skills may be outdated.

Consider, for example, that just 40 percent of employers believe recent college graduates are well prepared in skills critical for workplace success, including soft skills. Employers also give college graduates low scores for preparedness across learning outcomes. Students, on the other hand, think they are much better prepared for post-college success than employers do.⁷

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The disconnect between employer expectations and employee capabilities is not a new phenomenon. In 1998, for example, the Ohio Skill Gap Initiative, a joint venture of the Ohio Business Roundtable and the Ohio Department of Education, in cooperation with ACT, Inc., tested 14,000 Ohio high school graduates, using ACT's WorkKeys, and found just 1 in 14 or 7 percent ready for the workplace. In other words, we've been battling this issue for years, with unsatisfactory results.



Other more recent indicators of the expectations/capabilities disconnect include the following:

Gaps like these are widening. According to a 2016 McKinsey & Company study of more than 800 occupations, the continued growth of automation will drive substantial workforce changes over the next decade. Automation will likely result in very few occupations being eliminated entirely; however, it also likely will affect a portion of almost all jobs, in varying degrees. The McKinsey study attests that technologies available today could automate 45 percent of the activities that people are paid to perform and that about 60 percent of all occupations could see 30 percent or more of their component activities automated.¹¹

The December 2014 Workforce Integration Task Force Report concluded that Ohioans with disabilities often lack appropriate training opportunities to acquire the skills for in-demand occupations. The Task Force recommended the State of Ohio should ensure that in-demand occupational skills training be available and accessible to all Ohioans. In the same spirit, it is the intention and expectation of the Governor's Workforce Board that each of the training programs referenced and recommended throughout this report also be broadly accessible.

Strengthening Ohio's workforce development system is perhaps the most compelling economic imperative we face as a state. At stake is nothing less than Ohio's appeal to businesses across the globe seeking to locate, expand and invest – and Ohioans' future economic opportunity, prosperity and quality of life.

“... Based on current trends, there are potentially serious gaps in the supply of workers with the skills that will be needed to drive 21st century economies, and a growing supply of workers with more limited skills. Avoiding these imbalances (in both advanced and developing economies) and their consequences will require an unprecedented commitment to education and training.”¹²

Building on Recent Successes

Under Governor Kasich's leadership, Ohio has made great strides in ensuring that Ohio students have access to high-quality career preparation resources and that that schools, parents and students are properly incentivized to take advantage of those opportunities.

The recent partnership between the Ohio Department of Education and Opportunities for Ohioans with Disabilities (OOD) whereby OOD has embedded Vocational Rehabilitation Counselors into school districts will further the workforce system's ability to connect more students with disabilities to in-demand occupations, with guidance and counseling leading students to these career pathways.

Another example of committed collaboration to narrow Ohio's "talent gap" is the work of the Ohio Department of Education, the Ohio Department of Higher Education, and the Office of Workforce Transformation to convene stakeholders from K-12, higher education, workforce development, philanthropy and community partnerships to establish a formal Ohio Attainment Goal 2025:

“65 percent of Ohioans, ages 25-64, will have a degree, certificate or other postsecondary workforce credential of value in the workplace by 2025.”

It's clear that parents, educators and the business community are strongly motivated to ensure that students are prepared for successful careers. They recognize the positive changes ongoing at the state level and appreciate efforts to create a seamless, aligned system where students are prepared for their career paths, whether those paths include college degrees, industry credentials, apprenticeships, military enlistment, or a combination.

There is much work to be done in terms of communicating and building resources to help families connect with pathways, help businesses connect with schools, and help teachers connect with strategies to prepare their students for careers. The recommendations contained in this report have been proposed to assist in making these connections.

It Won't Be Easy

We need to make sure every Ohioan has the knowledge and skills needed to succeed in the workplace. This is a critical, must-have outcome for our businesses as well as for members of the state's workforce.

This creates an imperative to work together as a state to make sure businesses clearly communicate their workforce needs. Businesses must help shape training by forming partnerships with education institutions and government at all levels; playing a meaningful role in the development of curriculum, credentialing programs and work-based learning experiences; and working with education and training providers to match students with appropriate work-based learning experiences to help those entering or transitioning within the workforce get a better feel for career opportunities available to them.

Conversely, education providers, workforce development organizations, labor organizations and others must find ways to meet those employer needs. These diverse stakeholders must collaborate to develop education and training programs that will ensure a workforce capable of quickly adapting to new and evolving business needs.

We need to change the perception of career technical education so more students see specialized skills training as a viable pathway to success in college or careers.

In broad terms, we need a workforce development system that is not only aligned with employer needs but also with the realities of modern life and modern students.¹³ To achieve that objective, we also will need to change the perception of career technical education so more students see specialized skills training as a viable pathway to success in college or careers.

The Road Ahead

How well positioned are we in Ohio to respond to the workforce training challenge we face?

A diverse set of dynamics impacts our state's workforce development system. Currently, job training in Ohio is fragmented. Career and training providers, such as Ohio Technical Centers and OhioMeansJobs Centers, typically operate as silos. The broad and complex array of users with diverse needs makes it difficult to document and communicate resources and results. On top of these obstacles, the complexity of multiple agencies (at national, state and local levels) trying to address these issues adds another layer of difficulty.

We know we need to operate as an integrated, coherent system. We know we need to view our education, training and retraining programs as a centralized resource balanced with diverse, regional needs – and to provide greater visibility for the opportunities available through that resource. We know we need better occupational data, and we need to work more collaboratively to develop programs that truly meet business needs.

And, finally, we know this work needs to be a priority.

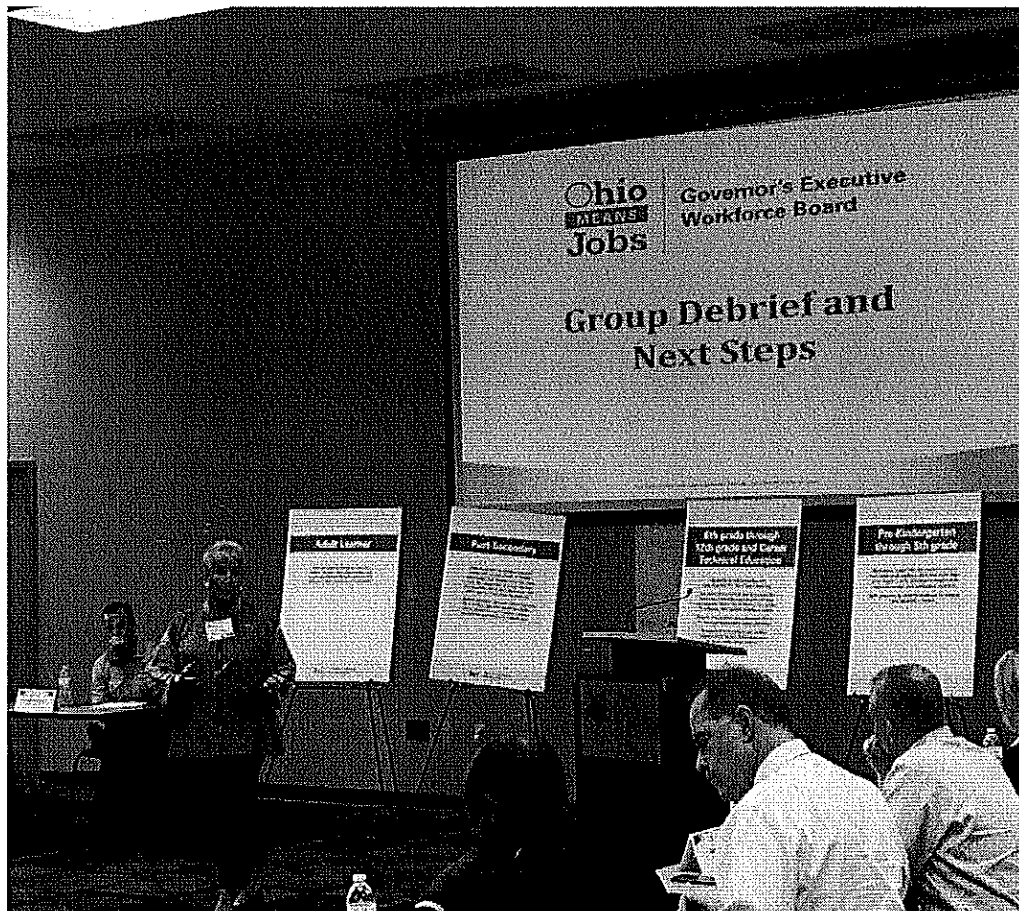
The Board shares Governor Kasich's vision of an education and workforce training system that ensures we have access to lifelong learning and the ability and flexibility to succeed in 5 to 10 jobs in a lifetime.

We understand that America has become a "knowledge nation" – and that we are moving forward, not in reverse. We are no longer making things the way we used to. Today we are making things with technology as a partner in raising productivity – because productivity is where the high value and high wages are to be found.

Through OhioMeansJobs.com, we've had some success connecting available jobs to people entering the workforce; looking ahead, we need to do an even better job of providing our entering, incumbent and displaced workers with the knowledge and skills they need to succeed, which in turn is what will help our businesses succeed.

As Governor Kasich noted in issuing his call to action to the Governor's Executive Workforce Board, what's important in the end is the value you represent when you enter the workforce. In a knowledge economy, if you have skills, you win; if you don't, you lose.

The workforce training challenge we face is about the very essence of opportunity in this great country and our great state. If we don't succeed in this quest, we'll be denying Ohio and its citizens great opportunities to move forward in a significant ways.



Process Overview

Work-Group Structure

The Board began its work with an exercise to identify the major gaps and challenges that exist in Ohio's workforce system today. To focus the Board's efforts, the Office of Workforce Transformation summarized the key gaps/challenges and categorized them into four groups that cross the lifetime learning continuum.

The Board then worked in groups each to develop recommendations for how to address specific gaps/challenges. To make most effective use of Board members' expertise, these work sessions were facilitated by LeanOhio staff. Subject matter experts from relevant state agencies also were on site to provide technical guidance and clarification.

Large-group discussion and several rounds of review and revision resulted in a consensus report of high-impact, high-scalability recommendations. The OWT project team, working collaboratively with board members and subject matter experts, then identified tactical initiatives that can be deployed to achieve each of the Board's recommendations. The result was this report, entitled Building Ohio's Future Workforce.

Criteria for Recommendations

The following guiding principles directed the Board's work to identify, assess and prioritize proposed solutions:

- **Recommendations must be scalable.** The greater the capacity and potential reach of the proposed solutions, the more likely transformative change will result.
- **Recommendations must have significant and lasting impact.** Because resources are limited, solutions must deliver maximum value and pay substantial dividends.
- **Recommendations must use data and research to confirm assumptions and solutions.** The stakes are so high that proposed actions must be grounded in empirical evidence, not simply theory.
- **Recommendations must be cost/budget neutral.** Scarce public dollars require strategic prioritizing and responsible stewardship of those dollars.

Common Themes

During the Board's deliberations on actionable recommendations for creating a more effective, efficient workforce development system, several common themes surfaced that should be noted here, as they helped frame the Board's thinking and spanned most working group topics of discussion.

- **Adopt a broader system perspective.** Board members consistently spoke of the need to view workforce education and training across a lifelong continuum. The more fully aligned, coordinated and comprehensive the various system components are, the more successful we will be in designing resources that meet the wide variety of system stakeholder needs.
- **Communicate and collaborate.** Repeatedly throughout the Board's deliberations participants pointed to examples of stakeholders' failure to communicate clearly, frequently and constructively on matters of specific needs, concerns, resources and opportunities. Most of these discussions concluded that formalizing various partnerships was one way to overcome common obstacles to maintaining ongoing meaningful dialogue.
- **Compile and share best practices and promising practices.** All working groups, and virtually all Board members, noted the vital need to do a better job of identifying, compiling and sharing documented best practices and promising practices. It was widely felt by participants that many great programs and practices exist in Ohio, and that a lack of coordinated sharing is the only thing preventing broader use and benefits across the state.
- **Repurposing existing resources.** One of the stated criteria for the Board's recommendations was that each recommendation must be budget/cost neutral. While this sometimes proved challenging in the brainstorming and discussion, Board members embraced the spirit of that specific criteria and offered many examples of where existing resources might be repurposed for greater benefit.

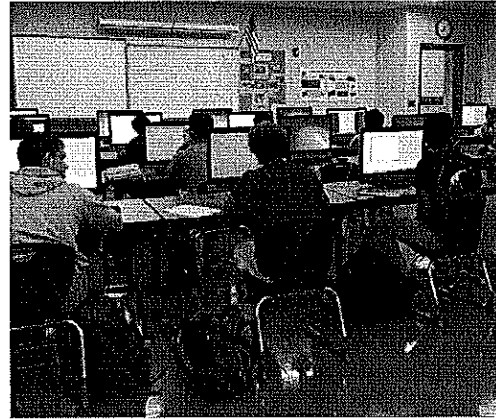
Recommendations

Problem Statement 1: A disconnect exists between school curricula and relevant, practical workplace skills, resulting in a gap between worker capabilities and employer expectations.

Recommendation 1A: Promote Local/Regional/State Collaboration

Promote collaboration of local chambers of commerce, regional economic development groups and JobsOhio with community colleges, Ohio Technical Centers and K-12 to align with the job demands of Ohio businesses.

- Require the Ohio Department of Higher Education, in collaboration with the Ohio Department of Education, to report annually to the Ohio General Assembly on Ohio's progress toward achieving the Ohio 2025 Attainment Goal of 65 percent of adult-age workers attaining affordable college degrees, industry certificates or other credentials of value to Ohio employers.
- Require the Ohio Department of Education and the Ohio Department of Higher Education to efficiently increase the articulation of career-technical education programs.
- Require the Office of Workforce Transformation to collaborate with JobsOhio to ensure that OWT strategies are closely aligned with specific occupations and competencies required by employers in JobsOhio's targeted industries.



Recommendation 1B: Require Schools to Offer Project-Based Learning

Require middle schools, high schools, community colleges, Ohio Technical Centers and universities to work with local businesses to offer project-based learning experiences that give students opportunities to solve authentic, real-world business problems.

- Require the Ohio Department of Education and the Ohio Department of Higher Education to work collaboratively with Ohio's major business organizations – Ohio Business Roundtable, Ohio Chamber of Commerce, Ohio Contractors Association, Ohio Manufacturers' Association, Ohio Council of Retail Merchants, NFIB-Ohio, and the Ohio Farm Bureau – to create a strategic plan for increasing project-based learning and develop professional development programs that address how to build authentic, real-world, project-based learning into the curriculum.

Recommendation 1C: Establish Regional Workforce Career Explorations and Counseling Collaborations

Establish regionally based Workforce Career Counseling Collaborations that make career counseling services available to middle school and high school students.

- Require the Ohio Department of Education, in coordination with the Ohio Department of Higher Education, to develop a Regional Workforce Career Counseling Collaboration model in which the JobsOhio Network, local chambers of commerce, local school districts, local businesses and others build county-level partnerships that provide career services to students. These services may include

job shadowing and internship experiences, career exploration activities, and problem-based curriculum developed around local employer needs. This will help ensure that students are placed in the best possible program, matched to their career interests and abilities, so they will be more likely to succeed. Washington County's Building Bridges to Careers program is a model of a collaborative program that provides robust career experiences to students in a cost-efficient manner by bringing together multiple school districts and employers.

Problem Statement 2: Educators are unsure of how to engage the business community regarding in-demand occupational needs, and businesses often are unclear about the best ways to share their workforce needs with educators and to engage them in identifying talent matched to businesses' needs and expectations.

Recommendation 2A: Increase Business Representation on Local School Boards

Increase efforts to establish and collaborate with local business and industry.

- Require local school boards to appoint three non-voting, ex officio members who represent local business interests.

Recommendation 2B: Require School Leader Engagement

Require school district superintendents and other district leaders to participate in local chambers of commerce and other business organizations and partnerships.

- Update current tools for evaluating school district superintendents to include engagement with area businesses as a performance metric.
- Revise Ohio's new school counselor standards to include engagement with businesses as a performance metric.

Problem Statement 3: Students do not have adequate opportunities for "work-based learning."

Recommendation 3A: Expand Business Engagement Opportunities

Increase business engagement opportunities with schools through student internships, co-ops, job shadowing, mentoring, tutoring, recognized apprenticeships and other opportunities for work-based learning.

- Promote and encourage the growth of successful programs such as Columbus's Christo Rey High School that integrate four years of rigorous college preparatory academics with four years of professional work experience through a "Corporate Work Study" model.
- Create a formalized "broker" position to help drive collaboration among local stakeholders, which could include local Chambers of Commerce and/or other economic development organizations.
- Require the Ohio Department of Education, in conjunction with the Governor's Office of Workforce Transformation and representatives from business organizations, to create an oversight body/process to review and update, annually, the approved industry-recognized credential list required for graduation.
- Encourage all school districts to review their Ohio Credit Flexibility plans to identify additional opportunities for integrating meaningful, work-based learning experiences and internships/co-ops. By connecting learning to real-world situations and future jobs, credit flexibility can increase students' interest in school and motivation to learn.

- Include work-based learning and post-graduation job placement metrics on the Ohio School Report Cards and require a balanced report card for college and career readiness.
- Align recognized pre-apprenticeship programs within Ohio's College Credit Plus program, add recognized pre-apprenticeship as a pathway to graduation, and add recognized pre-apprenticeship certificate attainment to the "Prepared for Success" report card measurement.
- Create awareness within the business community about subminimum wage laws applicable to students enrolled in bona fide vocational training programs.



Recommendation 3B: Encourage Teacher Externships

Increase externship opportunities for all teachers.

- Require teachers' Individual Professional Development Plans to include teacher externship experiences.
- Require Ohio's Professional Educator and Counselor License Renewal requirements to include CEU credits earned for teacher externship experiences.

Problem Statement 4: Parents and students lack awareness of non-four-year, postsecondary degree pathways. Persistent misconceptions and related stigmas have further limited exposure to these viable career options.

Recommendation 4A: Create an Annual, Statewide "In-Demand Jobs Week"

Create an annual statewide "In-Demand Jobs Week" to raise awareness among educators, students and parents of high-demand job openings, job requirements and job benefits.

- Require the Governor's Office of Workforce Transformation, in coordination with the Ohio Department of Education, the Ohio Department of Higher Education and the Ohio Department of Job and Family Services, to organize an In-Demand Jobs Week. Among the activities for this week would be in-demand job fairs or tours of companies that have in-demand occupations as a way to connect middle and high school students with prospective employers.
- Require the Ohio Department of Education to develop an "OhioMeansJobs-Ready Certificate" for high school students who demonstrate their work-readiness by successfully exhibiting to-be-determined work ethic competencies (such as teamwork, problem-solving, reliability, punctuality, etc.) validated by no fewer than three teachers and/or business mentors and attaining at least four objective competencies – including community service and technology – before graduation.

Problem Statement 5: Early exposure to career possibilities for parents and students is limited.

Recommendation 5A: Create an E-Information and Resource Sharing Tool

Establish a communication tool to share success stories for replication by education/training providers and to facilitate resource sharing among all stakeholders.

- Create "one-stop" web resources that are available during non-work hours or school hours, categorized by stage of life or by category (e.g., mentoring), providing state-level information for educators, families and communities, including information focused on career readiness skills and links to OhioMeansJobs.com for parents.
- Leverage the proposed sharing tool to provide resources and technical assistance for promising practices in disability inclusion through "Universal Course Design" -- a set of strategies and practices that make courses more accessible for students, especially those who speak a primary language other than English, are not academically prepared, go to school part-time and lead busy lives, or have disabilities.
- Enhance and expand efforts to make students and families more aware of the practice tests for the ACT, SAT, WorkKeys and others that are available free of charge on OhioMeansJobs.com.

Recommendation 5B: Foster Mentoring Relationships

Leverage existing relationships and programs to expand formal and informal, evidence-based mentoring relationships.

- Incorporate mentoring practices in the state's Quality Rating and Improvement System for early education providers.
- Incorporate drug prevention messaging in schools. Part of ensuring that children are career and college ready involves sharing the importance of staying drug-free. Start Talking! is an initiative that gives parents, guardians, educators and community leaders the tools to start the conversation with Ohio's elementary, middle and high school students about the importance of living healthy, drug-free lives. Schools should incorporate Start Talking! or other drug prevention messaging where appropriate.

Problem Statement 6: Businesses report that entry-level employees lack basic work-readiness skills that could begin to be taught in primary education and throughout the education system and mentoring programs.

Recommendation 6A: Leverage Effective Practices

Improve leveraging of financial resources by reallocating funds to replicate existing programs that have demonstrated effective, measurable outcomes.

- Monitor new evidence-based curriculum and assessment packages ("High Scope" and "The Creative Curriculum"), which contain social and behavioral lessons and are being offered by the Ohio Department of Job and Family Services and the Ohio Department of Education to publicly funded childcare and primary education providers.
- Strengthen professional development for childcare providers, which already focuses on Approaches to Learning and Social/Behavioral standards, by linking these important standards to career readiness.



Recommendation 6B: Formalize Career Exploration Partnerships

Formalize partnerships among businesses, communities, government and families to share and explore information about careers and how to prepare for them.

- Award extra points to childcare providers seeking a 4-star or 5-star rating in Ohio's Quality Rating and Improvement System for participating in community partnerships that engage businesses in sharing and promoting careers and exploring the kind of knowledge and skills needed to be successful.

Recommendation 6C: Focus Early on Employability and Career Readiness

Integrate the mission of employability and college/career readiness beginning early in life.

- Include career readiness as a core component of the State of Ohio's mission and guiding principles for primary education and development.
- Require programs to embed work-readiness skills into their standards.

Problem Statement 7: Postsecondary institutions allocate scarce and valuable funds to student remediation. This directs resources away from core programs, drives up the cost of education, and delays graduation and entry into the workforce for students.

Recommendation 7A: Provide Transition Classes

Provide "transition classes" to high school students with the highest need for remediation but also a strong desire to move onto postsecondary, to provide the extra instruction they need to be career-ready or college-ready upon graduation from high school.

- Consider implementing a statewide program like the Tennessee SAILS model, which allows high school seniors to complete remedial work through a blended learning curriculum developed through K-12 and higher education collaboration. The program has showed impressive results in graduating more students college-ready.
- Build on the success of programs such as Jobs for Ohio Graduates in serving the most at-risk youth in our state by helping these young people stay in high school through graduation; pursue postsecondary education; and ultimately secure quality, entry-level jobs leading to career advancement opportunities.

Recommendation 7B: Expand Co-requisite Remediation

Expand co-requisite remediation by allowing students in need of remediation to take credit-bearing courses, with extra support, enabling them to graduate sooner.

- Promote scalable expansion of co-requisite remediation at all of Ohio's public colleges and universities such as Wright State University and Lorain County Community College.
- Create more gateway mathematics and English courses that align to career goals and integrate workforce development and career development objectives such as programs at Rhodes State College (integrating career services in the school's Developmental Writing and English Composition courses) and Stark State College (developing alternative co-requisite remediation strategies and models for developmental courses in mathematics through the school's participation in the Ohio Mathematics Initiative).

Recommendation 7C: Invest in Early Redirection

Redirect students who are not progressing beyond remedial courses after a defined period of time to alternative pathways, with job-driven financial aid.

- Continue to grow programs that support early student career decision-making such as the successful collaboration between Shawnee State University, Southern State Community College and the Scioto County Career Technical Center. The Workforce Career Counselors proposed in Recommendation 1C would play a vital role in directing students to the right programs early on so remediation would not be necessary.

Problem Statement 8: Adult retraining programs are not widely known, often duplicative, not easily accessible (time/location), and reactive (after job loss has occurred).

Recommendation 8A: Create a State-Level Data Analytics Infrastructure

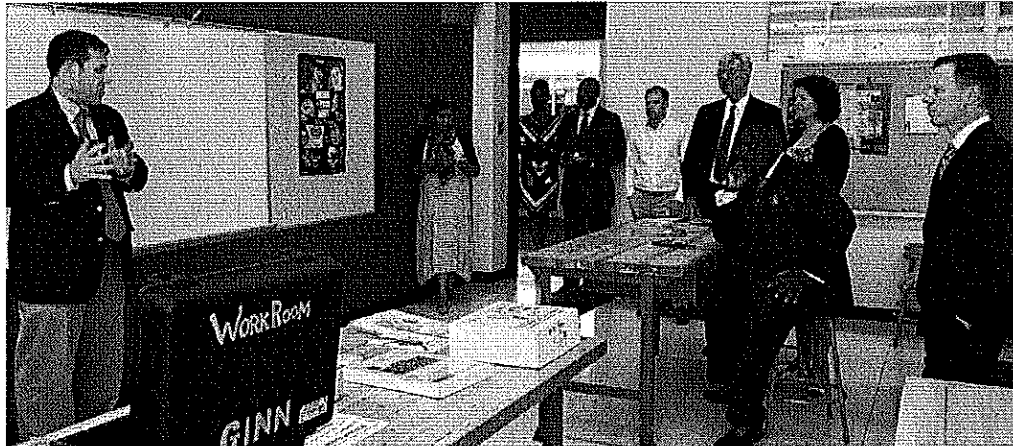
Enhance the existing, highly disjointed, state-level data analytics infrastructure to better coordinate work throughout the system and focus strategic initiatives on in-demand jobs and careers that are actionable on a local level.

- Enable state agencies to share data more efficiently, allowing providers to deliver a holistic approach to a jobseeker.
- Expand OhioMeansJobs.com capabilities by offering dynamic, interactive career pathways to middle school students, high school students and adult jobseekers.
- Utilize real-time demand and supply data compiled by the Ohio Department of Higher Education in fulfillment of obligations associated with State Workforce and Education Alignment Project (SWEAP) grants for aligning in-demand occupations with college curriculum and guiding jobseekers to employment opportunities for which they are qualified.
- Expand the number of in-demand occupations, as determined by the Governor's Office of Workforce Transformation, currently mapped by region and accessible via the OhioMeansJobs.com Workforce Supply Tool, to the full listing of in-demand occupations.
- Require the Governor's Office of Workforce Transformation, in conjunction with the Ohio Department of Job and Family Services, to conduct a biennial survey of in-demand occupations in Ohio.
- Require the Ohio Department of Education and the Ohio Department of Higher Education to establish design teams that leverage existing industry-led workforce partnerships to identify emerging skill needs based on predictive as well as real-time data analytics, and recommend innovations in education and training that respond to these trends.

Recommendation 8B: Enhance Ohio's Career Transition & Training Delivery System

Create a more comprehensive, integrated, career transition and training delivery system that assists jobseekers in getting started on a career pathway, delivering short-term, non-credit adult training that integrates industry-recognized credentials, is built upon dedicated career counseling/coaching services, and positions jobseekers for moving on to the next steps in their career pathway.

- Require the Ohio Department of Higher Education to collaborate with key sectors in Ohio's high-demand industries as well as public colleges, universities and Ohio Technical Centers to develop and implement strategies such as prior learning assessment that support increased attainment of postsecondary credentials by adults over age 25 for careers in in-demand jobs.
- Consolidate adult education programs currently within the Ohio Department of Higher Education and Ohio Department of Education into one agency to achieve greater coordination and results.
- Consolidate funding for Adult Education programs to allow for greater flexibility among programs.
- Require Adult Basic Literacy providers to apply for eligibility in the Workforce Inventory of Education and Training No. 16-02 with the Ohio Department of Job and Family Services to coordinate training services that focus on providing short-term certifications for those who fall below postsecondary aptitudes.
- Require ABE for adults who score below a 6th-grade level in reading and/or math on college and training program placement tests and accelerate learning that supports career pathways to in-demand jobs by setting state-level policies allowing co-enrollment in adult workforce training programs (i.e., career tech and adult diploma programs).
- Rebrand Ohio's public libraries as "Continuous Learning Centers" that serve as hubs for information about local in-demand jobs and relevant education and training resources. Additionally, bolster the Ohio Digital Library's online education resources to provide more accessible training materials to adult learners.
- Require OhioMeansJobs Centers to enter into memorandums of agreement with public libraries to facilitate collaboration and coordination of workforce development programs.
- Require uniform intake forms for adult training programs funded by the Workforce Innovation and Opportunity Act.
- Require the Ohio Department of Job and Family Services, in coordination with the Ohio Department of Education and the Ohio Department of Higher Education, to build an interactive portal within OhioMeansJobs.com that provides an automated referral service matching the job training needs of Ohio's businesses with training providers. This information would be made available to Career Technical Education, Ohio Technical Centers, and community colleges interested in bidding on providing the requested training services. Training providers who meet the needs outlined by Ohio businesses would be given priority access to the state's Workforce Revolving Loan Fund.
- Assess the impact of pilot programs that assist eligible unemployed and underemployed adults in overcoming employment barriers to the education, training and support resources they need to become skilled workers pursuing career and wage pathways – and determine feasibility of scaling up the program across Ohio.
- Encourage improvements to existing programs to increase their availability to individuals with disabilities and require that all newly developed programs are accessible to individuals with disabilities through reasonable accommodations.



Recommendation 8C: Foster a Statewide Learning Culture

Foster a statewide "learning culture" that is responsive to a dramatically changing workplace and promotes and supports lifelong learning.

- Require the Ohio Department of Job and Family Services to scale up the Work Ready Communities initiative to state level through a statewide competition among OhioMeansJobs Centers, driving up the number of communities across Ohio that have conducted ACT WorkKeys analysis and aiding job seekers and employers alike with information that will secure better employer-employee matches and drive economic growth.
- Create incentives – i.e., reduced sentences – for eligible incarcerated individuals in Ohio to receive their high school equivalency certificates.
- Require the Ohio Department of Higher Education to compile an inventory of non-credit certificate programs at Ohio colleges, universities and Ohio Technical Centers, and redirect state funding for programs that align with in-demand jobs and integrate industry-recognized credentials, to support adult learners in acquiring the skills needed for success in in-demand jobs.
- Expand eligibility of the Ohio National Guard Scholarship fund to include apprenticeship and short-term, in-demand certificate programs.
- Require the Governor's Office of Workforce Transformation, the Ohio Department of Job and Family Services and the Ohio Department of Higher Education to promote Western Governors University curriculum and capabilities, as well as other competency-based training resources in areas that align with Ohio's in-demand occupations, for working adults with some college or no degree and to employers seeking educational opportunities for their employees.
- Encourage continuous learning by offering online training services, such as Udacity, and shorter-term "boot camp" trainings to quickly respond to the needs of businesses.

Problem Statement 9: Promising practices throughout the state are inconsistently implemented.

Recommendation 9A: Develop methods/mechanisms for identifying, compiling and sharing best practices.

Continue to develop the Governor's Office of Workforce Transformation's website and social media venues in an effort to create awareness around promising practices.



Governor's Office of
Workforce Transformation



A United Effort to Create a Brighter Future

Building Ohio's future workforce will be a major undertaking. It will require unwavering commitment, fresh new ways of thinking, and above all, unprecedented levels of collaboration among stakeholders. The pace and magnitude of technological change, along with the pressures and opportunities of a knowledge-based global economy, leave us with no other viable option.

If there is one thing the work of the Governor's Executive Workforce Board has revealed again and again, it's this: Businesses and educators must communicate with each other more often, more clearly and more candidly about their needs and expectations. Collaboration will be the key – to creating economic opportunity for our youth and adult workers, to strengthening the competitiveness of Ohio businesses, and to spurring economic growth and prosperity for all.

Governor Kasich charged the Board to "Identify ways to prepare and continuously retrain Ohioans of all ages for the jobs of today and tomorrow." We have embraced the Governor's charge, and we look forward to the next step in strengthening our state's workforce development system – i.e., incorporation of our proposed tactical options into the 2018–19 Executive Biennial Budget. We believe our recommendations will help ensure that Ohio businesses have access to a skilled and productive workforce, and that any improvements to the workforce development system will have business needs at the forefront.

We believe our recommendations will help ensure that Ohio businesses have access to a skilled and productive workforce, and that any improvements to the workforce development system will have business needs at the forefront.

Urgent action is needed for Ohio to thrive, and not merely survive, in the brave new world of global competition, technological advancement, manufacturing automation and lifelong learning. We simply cannot afford to delay.

References

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2. Cathy N. Davidson, co-director of the annual MacArthur Foundation Digital Media and Learning Competitions, quoted by Virginia Heffeman, "Education Needs a Digital-Age Upgrade," *The New York Times*, Aug 7, 2011.
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4. Ohio Department of Education
5. Georgetown University Center on Education and Workforce, *Recovery: Job Growth and Education Requirements Through 2020*. June 2013. The 64 percent figure includes not only jobs requiring postsecondary certificates or higher, but also jobs requiring "some college."
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9. Gallup-Lumina Foundation, "The Lumina Foundation Study on the American Public's Opinion on Higher Education: What America Needs to Know About Higher Education Redesign," 2014.
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12. McKinsey & Company, "The World at Work: Jobs, Pay and Skills for 3.5 Billion People," 2012.
13. U.S. Department of Labor Blog, "A Joint Imperative to Strengthen Skills," September 11, 2013.

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Sandusky County and
Portions of Seneca County

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Bill Reineke
State Representative

Committees

Government Accountability and
Oversight - Vice Chair

Finance and Appropriations

Financial Institutions, Housing
and Urban Development

Ways and Means

Executive Appointments

Governor's Executive Workforce
Board - Board Member

December 5, 2017

Dear Workgroup Members:

Please accept my apology for being unavailable for tonight's meeting, however, I wanted to express my firm belief that option 4, the "Career Tech Program Pathway", should be made permanent.

I hope that before any decisions are made, regarding graduation requirements, that the recommendations of the Governor's Executive Workforce Board made in our "Future of Workforce" report are considered. We can no longer tolerate low graduation rates, high rates of remediation, and significant shortages of qualified, work-ready students.

The continuity of promoting career readiness must be maintained, which is what the Career Tech Program Pathway does. Furthermore, I have strong feelings that before reconfigurations are made to the current graduation requirements, we must address the major issue of school district's not even knowing there are three core pathways to graduation (let alone the 5 available for 2018).

Further thoughts will be reflected after follow-up discussions with the Director of the Governor's Office of Workforce Transformation.

Thank you for your consideration.

Sincerely,

Handwritten signature of Bill Reineke in cursive script.
Bill Reineke

CC: Director Ryan Burgess
Governor's Office of Workforce Transformation

From: Leach, Eric
Sent: Tuesday, December 12, 2017 8:58 AM
To: 'Greg Edinger'
Subject: FW: NEXT MEETING: High School Success and Postsecondary Connections -- December 12 @4:00 PM
Attachments: GradReqs-ConsolidatedOption-DRAFT-NewVersion-Dec2017.docx; Earning the OhioMeansJobs-Readiness Seal - Educators Students and Families_12.6.17 (003).docx; Future of Workforce Report.pdf; Letter from Rep. Reineke.jpg

Greg,

Could you review the below email and attachments? What are your thoughts on the new draft graduation requirement option (1st attachment)? Is this a good option?

Would love to get your feedback before the meeting today at 4PM.

Thanks!

Eric Leach
Legislative Aide
Office of Representative Bill Reineke
88th District | Ohio House of Representatives
614-466-1374
eric.leach@ohiohouse.gov
77 South High Street, 13th Floor
Columbus, OH 43215

From: Shaun.Yoder@education.ohio.gov [mailto:Shaun.Yoder@education.ohio.gov]
Sent: Monday, December 11, 2017 9:00 PM
To: samantha.fallucco@education.ohio.gov; m_brueining@chuh.org; dcorsini@oregoncs.org; sdackin@csc.edu; Dr. Pamela Ellis <drpamela@compasseducationstrategies.com>; garyfaer@gmail.com; tanyaficklin@fuse.net; Germann4lincolnview@gmail.com; whampton@mariettacsdo.org; kennedy@battelle.org; bladuca1@udayton.edu; tlasley1@udayton.edu; Leach, Eric <Eric.Leach@ohiohouse.gov>; margie ma <margiehma@gmail.com>; Joyce Malainy <jmalainy@c-tec.edu>; Michalec.Lori@tallmadgeschools.org; lisagray@lgaconsult.com; daniel.murphy@rgdrage.org; lwerbrich@mvctc.com; sarawilliams@gotanks.org; Bill Wise <bill.wise@swcsd.us>; Stephanie.Dodd@education.ohio.gov; Kara.Morgan@education.ohio.gov; Linda Haycock <speakupforohioeducation@gmail.com>; Paolo.Demaria@education.ohio.gov; Robert Davis <davisr@ohea.org>; Julie Davis <jdavis@oaea.org>; Jennifer Hogue <jhogue@ohioschoolboards.org>; Melissa Cropper

<mcropper@oft-aft.org>; 'Sheila Vance' <sheila.vance@ymail.com>; Dave Axner <axner@basa-ohio.org>; Barbara Shaner <barbaracshaner@gmail.com>
Cc: Leah Moschella <lmoschella@jff.org>; Sheila Jackson <sjackson@jff.org>; steve.gratz@education.ohio.gov; tisha.lewis@education.ohio.gov; cassandra.palsgrove@education.ohio.gov; Buddy.Harris@education.ohio.gov; Holly.Lavender@education.ohio.gov; Stephanie.Meeks@education.ohio.gov; Paolo.Demaria@education.ohio.gov
Subject: RE: NEXT MEETING: High School Success and Postsecondary Connections -- December 12 @4:00 PM

Dear Members of the High School Success and Postsecondary Workgroup:

We look forward to seeing you at 4PM tomorrow. Our agenda will be singularly focused on graduation requirements for the class of 2019 and beyond. To help facilitate our discussion, attached please find the following (*note*—if you're attending tomorrow's Workgroup meeting in person, then no need to print these documents; we will have copies on hand):

- 1) Newly developed DRAFT graduation option, which attempts to capture the small group conversations from last Tuesday (first attachment)
- 2) "Earning the OhioMeansJobs-Readiness Seal: A Guide for Educators, Students and Families," which describes the process for earning the seal (second attachment)
- 3) Building Ohio's Future Workforce—Report of the Governor's Executive Workforce Board, which provides the perspective of employers (third attachment)
- 4) Representative Reineke's letter, which urges that the "Career Tech Program Pathway" be made permanent. Eric Leach spoke to this letter last week (fourth attachment). We believe the draft graduation option (in first attachment) accommodates Rep. Reineke's suggestions.

All meeting logistical details, including the call-in number, can be found below. Please let me know if you have any questions.

See you tomorrow.
Shaun

Shaun C. Yoder
Chief Strategy Officer &
Director of External Partnerships

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Shaun.Yoder@education.ohio.gov
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From: Fallucco, Samantha

Sent: Friday, December 8, 2017 1:29 PM

To: m_bruening@chuh.org; dcorsini@oregoncs.org; Stephen Dackin <sdackin@cscs.edu>; Dr. Pamela Ellis <drpamela@compasseducationstrategies.com>; garyfaer@gmail.com; tanyaficklin@fuse.net; Germann4lincolnview@gmail.com; whampton@mariettacsdoh.org; kennedya@battelle.org; bladuca1@udayton.edu; tlasley1@udayton.edu; Eric.Leach@ohiohouse.gov; margie ma <margiehma@gmail.com>; Joyce Malainy <jmalainy@c-tec.edu>; Michalec.Lori@tallmadgeschools.org; Adrienne Wells <lisagray@lgaconsult.com>; daniel.murphy@rgdrage.org; lwerbrich@mvctc.com; sarawilliams@gotanks.org; Bill Wise <bill.wise@swcsd.us>; Dodd, Stephanie <Stephanie.Dodd@education.ohio.gov>; Morgan, Kara <Kara.Morgan@education.ohio.gov>; Linda Haycock <speakupforohioeducation@gmail.com>; Demaria, Paolo <Paolo.Demaria@education.ohio.gov>; Robert Davis <davisr@ohea.org>; Julie Davis <jdavis@oaea.org>; Jennifer Hogue <jhogue@ohioschoolboards.org>; Melissa Cropper <mcropper@oft-aft.org>; 'Sheila Vance' <sheila.vance@ymail.com>; Dave Axner <axner@basa-ohio.org>; Barbara Shaner <barbaracshaner@gmail.com>
Cc: Yoder, Shaun <Shaun.Yoder@education.ohio.gov>; Leah Moschella <lmoschella@jff.org>; Sheila Jackson <sjackson@jff.org>; Gratz, Steven <steve.gratz@education.ohio.gov>; Lewis, Tisha <tisha.lewis@education.ohio.gov>; Palsgrove, Cassandra <cassandra.palsgrove@education.ohio.gov>; Harris, Buddy <Buddy.Harris@education.ohio.gov>; Lavender, Holly <Holly.Lavender@education.ohio.gov>; Meeks, Stephanie <Stephanie.Meeks@education.ohio.gov>

Subject: NEXT MEETING: High School Success and Postsecondary Connections -- December 12 @4:00 PM

Dear Workgroup Members:

Our next meeting will be held on Tuesday, December 12 at 4:00 PM. This meeting will be held in Room B-004. The dial-in number for those unable to attend in person is **614-495-8609**. As always, **backpacks are not permitted in the building**.

Keep an eye out for an email from Shaun with materials for the meeting. Additionally, we will likely be adding meeting dates into January. We will discuss potential dates with the group on Tuesday.

Let me know if you have questions in the meantime.

Thanks,
Samantha

Samantha Fallucco

Office of Strategic Initiatives

25 South Front Street | Columbus, Ohio 43215-4183

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Another Option – Graduation Requirements (Dec. 6, 2017)

Draft for Discussion Purposes Only

(The contents of this document should not be construed as reflecting the position of the State Board of Education, the Department of Education or the State Superintendent.)

(Note: All points values are simply illustrative. All numeric values can be adjusted as discussions unfold. Items can be deleted – or more items included. Everything in this model should be considered to be up for discussion.)

This model is built on a system of 24 points. Student would have to secure the minimum points for each of five areas. All students would still take all high school end-of-course exams and ACT/SAT. It also assumes no double counting (e.g., can't use one AP exam in more than one category.)

A. Foundational Knowledge

1. English – Minimum of 4 points from one of the following (no mixing)
 - a. ACT/SAT score on English component (need to specify level)
 - b. 4 points between the two end-of-course English exams
 - c. AP exam – score of 2? (AP English language and composition; AP English literature and composition)
 - d. IB comparable
 - e. 2.8 GPA on all high school (or Jr/Sr year?) English courses
 - f. English language/writing/communication component of Sr. Capstone
 - g. (if we still have WorkKeys, you could include that here too)
 - h. College credit plus English course w/grade of C or better
2. Math – Minimum of 4 points from one of the following (no mixing)
 - a. ACT/SAT score on Math component (need to specify level)
 - b. 4 points between two end-of-course Math exams
 - c. AP exam – score of 2? (AP Calculus, AP Statistics)
 - d. IB comparable
 - e. 2.8 GPA on all high school (or Jr/Sr year?) Math courses
 - f. Math/Statistical analysis component of Sr. Capstone
 - g. (If we still have WorkKeys, you could include that here too)
 - h. College credit plus math course w/grade of C or better

B. Content Courses

3. Science – Minimum of 2 points from one of the following (no mixing)
 - a. ACT/SAT science subexam? (specify level)

- b. 2 points on Biology end of course exam
 - c. AP Exam – score of 2? (AP Bio, Chem, Physics {any}, Env. Sci.)
 - d. IB comparable
 - e. 2.8 GPA on all high school (or Jr/Sr year?) Science courses
 - f. College credit plus science course w/grade of C or better
4. Other Subjects – Minimum of 6 points (mixing allowed – would have to assign point values to each of these)
- a. Four course career tech sequence (4 points)
 - b. Industry credential (2 points)
 - c. Am. History/Am. Government end of course exams
 - d. AP course exam grade 2 or higher (2 points? for each exam)
 - e. IB comparable
 - f. College credit plus courses w/grade of C or better (3 points? each)
 - g. 2.8 GPA on all non-English/non-Math/non-Science high school courses (3 points?)
 - h. Additional points on Eng/Math/Science end-of-course exams (above 2 on any test)

C. Critical Skills (Success Skills)

5. Meaningful Extracurriculars – 6 points – (Mixing allowed – would have to assign points to each item – specify persistence? Multiple years?):
- a. Marching band
 - b. Choir
 - c. Sports participation
 - d. School Theatre production
 - e. Community Service
 - f. Workplace Experience – OMJ Career Readiness Seal
 - g. Art portfolio
 - h. FFA State Degree
 - i. Eagle Scout/Gold Award

Note: One could perhaps figure out a way – rather than having capstone components – to have a holistic senior capstone that, if successfully completed could yield all the English, Math and Science points.

Earning the OhioMeansJobs-Readiness Seal

A Guide for Educators, Students and Families

The OhioMeansJobs-Readiness Seal

The 21st century workplace is constantly evolving. To ensure success in their careers, students must be prepared to engage in this rapidly changing environment. Ohio businesses are seeking talented workers who have professional skills required for success in the workplace. These skills include being reliable, drug free, personable, and able to solve problems and handle conflict.

Ohio's education system must identify and teach the professional skills that Ohioans need to be job-ready. When schools prepare students for the 21st century workplace, they also build the talented workforce that businesses need.

The OhioMeansJobs-Readiness Seal is a formal designation students can earn by demonstrating the professional skills that are required for success in the workplace. Students can earn the OhioMeansJobs-Readiness Seal by asking three or more mentors to validate that the student has demonstrated the professional skills that are valued by Ohio businesses.

The OhioMeansJobs-Readiness Seal distinguishes students who are prepared to contribute to the workplace and their communities. The seal indicates that the student has personal strengths, a strong work ethic and professional experience.

To earn the OhioMeansJobs-Readiness Seal, students must complete the following steps:

1. Become proficient* in 15 essential professional skills.
2. Using the OhioMeansJobs-Readiness Seal Form, record how he or she demonstrated each essential professional skill in at least two of three environments. The three possible environments are school, work or community. Three or more mentors must validate the form. Mentors are experienced advisors the student trusts. By signing the form, the mentor is recommending the student to his or her prospective employer or higher education provider. Students only are required to obtain a signature from one mentor per skill, but each student must demonstrate all the skills on the form.

To go above and beyond in preparation for career or college success, students may:

1. Ask mentors to write letters of recommendation. These can give the student an advantage when applying for jobs or to colleges.

***Proficient:** Has a deep understanding, can achieve a high standard routinely and take on responsibility for own work, deals with complex situations and decision-making with confidence, and sees overall, how individual actions influence outcome. (The Dryfus Model of Skill Acquisition, <http://devmts.org.uk/dreyfus.pdf>)

2. Create an OhioMeansJobs K-12 backpack. This will allow the student to explore the career planning resources available for free through OhioMeansJobs.com.

Professional Skills

To understand the skills required for success in the 21st century, the OhioMeansJobs-Readiness Seal team surveyed the business community. According to Ohio businesses, students and applicants must demonstrate proficiency in the following professional skills to be ready for work:

- **Drug Free** - The student commits to being drug free.
- **Reliability** - The student has integrity and accountability in professional settings.
- **Work Ethic** - The student has effective work habits, personal accountability and a determination to succeed.
- **Punctuality** - The student arrives to commitments on time and ready to contribute.

****Drug-Free:** Although commitment to being drug-free may not qualify as a "skill," this quality is equally important to employers.

- **Discipline** - The student abides by guidelines, demonstrates self-control and stays on task.
- **Teamwork/Collaboration** - The student builds collaborative relationships with others and can work as part of a team.
- **Professionalism** - The student has integrity. He or she dresses and acts appropriately and responsibly. He or she learns from mistakes.
- **Learning Agility** - The student desires to continuously learn new information and skills.
- **Critical Thinking/Problem-Solving** - The student exercises strong decision-making skills, analyzes issues effectively and thinks creatively to overcome problems.
- **Leadership** - The student leverages the strengths of others to achieve common goals. He or she coaches and motivates peers and can prioritize and delegate work.
- **Creativity/Innovation** - The student is original and inventive. He or she communicates new ideas to others, drawing on knowledge from different fields to find solutions.
- **Oral and Written Communications** - The student articulates thoughts and ideas clearly and effectively in written and oral forms.
- **Digital Technology** - The student has an in-depth understanding of emerging technology and leverages technology to solve problems, complete tasks and accomplish goals.
- **Global/Intercultural Fluency** - The student values, respects and learns from diverse groups of people.
- **Career Management** - The student is a self-advocate. He or she articulates strengths, knowledge and experiences relevant to success in a job or postsecondary education.

Environments and Mentors:

School: The student demonstrates professional skills in a school environment during the school day and/or during extracurricular activities. School mentors include teachers, administrators, advisors, coaches and others. These activities are separate from work-based or community-based activities.

Work: The student demonstrates professional skills in a work environment. Work mentors include supervisors, hiring managers, experienced co-workers and others. These activities are separate from school-based or community-based activities.

Community: The student demonstrates professional skills in a community environment. Community mentors include volunteer coordinators, faith-based leaders and others. These activities are separate from school-based or work-based activities.

Students must choose mentors they worked with, activities they participated in and skills they demonstrated while in high school.

***Proficient:** Has a deep understanding, can achieve a high standard routinely and take on responsibility for own work, deals with complex situations and decision-making with confidence, and sees overall, how individual actions influence outcome. (The Dryfus Model of Skill Acquisition, <http://devmts.org.uk/dreyfus.pdf>)



Nick Jarrett (right), Coordinator of Robotics and Advanced Manufacturing, helps student Henry Gegorski, program a FANUC LR Mate 200i at Terra State (Fremont, Ohio).

Building Ohio's Future Workforce

Ohio

John R. Kasich, Governor

**Governor's Office of
Workforce Transformation**

Ryan D. Burgess, Director

The State of Ohio is an Equal Opportunity Employer and Provider of ADA Services



Governor's Executive Workforce Board

John R. Kasich, Governor of Ohio
R. Blane Walter, Chair

Governor's Executive Workforce Board

John R. Kasich
State of Ohio

R. Blane Walter (Chair)
Tallman Capital Partners

Dennis A. Nash (Vice Chair)
Kenan Advantage Group

Mike Archer
Pioneer Pipe/Pioneer Group

John E. Barnes, Jr.
Ohio House

Bill Beagle
Ohio Senate

John Carney
Ohio Department of Higher Education

Roy A. Church
Lorain County Community College

Janet Weir Creighton
Stark County Commission

Richard Dalton
International Union of
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Cynthia C. Dungey
Ohio Department of Job and
Family Services

Dennie Franks
Pickaway-Rosa Career and
Technology Center

Vicki Giambrome
CBD Advisors

Christina Hurr
Goodwill Easter Seals Miami Valley

Andrea Kramer
City Apparel/Go Grow Strategies

Dave LeDonne
MackWest Energy Partners

Stephani Lipstur
The Electrical Trades Center

Kevin MBoor
Opportunities for Ohioans
with Disabilities

Phillip L. Parker
Dayton Area Chamber
of Commerce

Albert B. Rainer
Forest City Enterprises, Inc.

Jamie Regg
General Electric Aviation

Bill Reineke
Ohio House

Richard A. Stoff
Ohio Business Roundtable

David Whitehead
Cuyahoga Community College

Sandra Williams
Ohio Senate

David Wynn
BAF Corporation

Thomas F. Zenty III
University Hospitals

December 31, 2016

The Honorable John R. Kasich
Office of the Governor
77 South High Street, 30th Floor
Columbus, Ohio 43215

Dear Governor Kasich,

In September 2016, you challenged the Governor's Executive Workforce Board to work with the Office of Workforce Transformation to identify ways to prepare and continuously retrain Ohioans of all ages for the jobs of today and tomorrow.

Recognizing the importance of this charge and the dynamic needs of businesses in Ohio, the Board worked with the Office of Workforce Transformation and appropriate state agencies to determine the most prominent workforce challenges and corresponding recommendations to ensure Ohio's businesses have access to a skilled and productive workforce.

Board members sought feedback from local business, education, workforce and economic development leaders and the communities they represent to provide perspective and feedback that contribute to a number of issues that are affecting employers and job-seekers alike. The recommendations presented in the report will aim to address the overarching challenges with the goal of improving growth and prosperity for companies and individuals across Ohio.

All concepts in the report were developed with the following criteria in mind: recommendations must be scalable, have a significant and lasting impact, use data and research to support claims, and be cost and budget neutral. The attached report will outline recommended solutions for your consideration as we approach the FY18-19 Executive Biennial Budget.

Together, we share the common goal of breaking down barriers to employment, training, and education in Ohio. With your support and continuous collaboration with our local businesses and communities, we were able to rise to the challenge and identify ways to make Ohio an even better place to live and work.

Sincerely,

R. Blane Walter
Chair

Ryan D. Burgess
Director



Governor's Office of Workforce Transformation

In February 2012, Governor John Kasich issued an Executive Order creating the Governor's Office of Workforce Transformation (OWT) with the following mission:

To grow Ohio's economy by developing a skilled workforce, promoting effective training programs, and connecting Ohio employers with qualified workers.

The Governor also established the Governor's Executive Workforce Board, comprising business leaders and workforce development stakeholders, to guide the OWT's work and ensure that business needs are at the forefront of any improvements to the system.

Call to Action

As part of his ongoing search for transformative ideas to shape Ohio's workforce, Governor Kasich challenged the Governor's Executive Workforce Board to work with appropriate state agencies to respond to this charge:

Identify ways to prepare and continuously retrain Ohioans of all ages for the jobs of today and tomorrow.

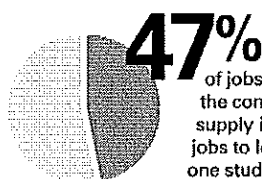
The purpose of this undertaking is to identify the most prominent challenges in early, secondary, postsecondary and adult education with the goal of identifying actionable solutions to ensure Ohio's businesses have access to a skilled and productive workforce. The near-term objective is to identify proposed actions and/or changes to be considered for incorporation into the Governor's FY18-19 Executive Biennial Budget.

Why Improvements Are Needed

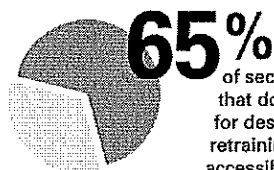
It's commonplace when discussing public policy needs and priorities to talk of "gaps" and related "imperatives." The focus of this report is on one of the most critical gaps and one of the highest-stakes imperatives we face as a state.

A Brave New World

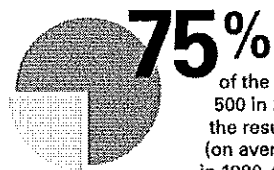
Ohioans must acknowledge that we're living in a brave new world of massive, rapid and often disruptive technological change and advancement, and that the jobs of tomorrow will be increasingly technology-heavy. Many of today's jobs were not even imagined 20 years ago. Following are a few indicators of the challenge Ohio faces to make sure every Ohioan has the knowledge and skills needed to succeed in the 21st century workplace, and every Ohio business can find the skilled, adaptable workers they need to compete and thrive globally:



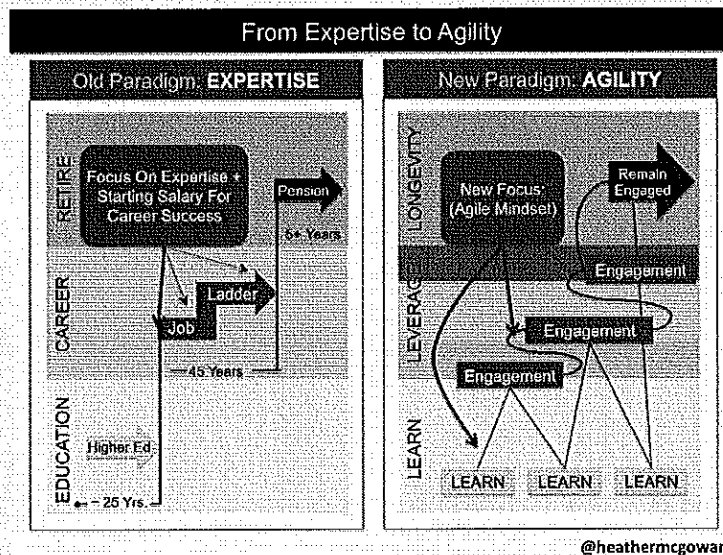
of jobs [total U.S. employment] could be phased out in the coming years due to technological advances. Labor supply is shifting from middle-income manufacturing jobs to low-income service occupations. According to one study, "... as technology races ahead, low-skill workers will reallocate to tasks that are non-susceptible to computerization – i.e., tasks requiring creative and social intelligence. For workers, to win the race, however, they will have to acquire creative and social skills.¹



of secondary students are predicted to work in jobs that do not yet exist. This creates a major challenge for designing curriculum in education, training and retraining programs, as well as a critical need for accessible, flexible, lifelong learning resources. We know, however, that most future jobs safe from the danger of automation will necessarily put a premium on skills such as the ability to think creatively and to find, frame and solve problems.²



of the companies expected to be listed on the S&P 500 in 2027 have yet to be established. This is in part the result of shrinking lifespans for companies, from (on average) 68 years on average in 1958, to 25 years in 1980, to 18 years in 2012.³



The Case for Design Learning

"Design learning" speaks to a potential shift in focus for future workforce education and training, from simply transferring existing knowledge to students to focusing on the processes of entrepreneurial learning and creativity:

"The truth is that we can no longer afford to focus on graduating learners armed only with predetermined skills and (already existing) knowledge. The workforce is becoming far too global, too digital, and increasingly too self-employed. We must instead refocus on cultivating creativity, to include not only problem solving, but also problem finding and problem framing. ...

"Design learning is a nascent field that should be codified and taught in schools as a capstone to learning – beginning as early as grade school. Rather than assuming the purpose of education is simply the transfer of fixed knowledge, design learning facilitates the development of the entrepreneurial dispositions and skills necessary to adapt to rapid social and technological change. Indeed, it is our view that education has to pivot from professional training to preparing individuals to innovate within new and emerging fields.

"Education has traditionally prepared individuals for work, but work is now changing too quickly for the latest professional skills to be readily translated into curriculum. The value of design learning is that it provides the right methodology for this changing reality. More important it mirrors the iterative learning and solution building that characterizes the world of work after schooling. ...

"Rather than transferring a fixed body of language and practices from experts to amateurs, design learning focuses instead on developing a learner's capacity to explore, make sense, and craft new innovation on their search for new opportunities. In this way, design learning is a core educational literacy that prepares individuals to creatively adapt to change."

Source: Daniel Araya and Heather McGowan, "Education and Accelerated Change: The Imperative for Design Learning," Brown Center Chalkboard, Brookings, September 9, 2016

Disconnect Between Business and Education

In a world where the majority of jobs are technology-intensive and require some level of technical knowledge and skills, career training is an even more important and more viable pathway to occupational success. However, disconnects do exist in the delivery of career education and training. For example, the New Skills for Youth Survey, a 2016 statewide poll of Ohioans conducted by the Ohio Department of Education (ODE) and drawing more than 12,000 responses, provided useful insights⁴ on stakeholder views of career education:

- The top reason students cite for not engaging in career-focused coursework is that they don't know enough about the options available to them. Educators feel like they are providing a wide range of options to students in terms of career preparation; conversely, students and parents don't feel as though children are receiving career preparation in school.
- Many K-5 teachers do not see career preparation as part of their jobs as educators. About 20 percent of K-5 teachers do not incorporate career preparation in their lessons, with many more indicating they teach primary grades, and careers should not be part of discussion at the primary school level.
- Only 39 percent of school and district administrators agree that teachers in their schools feel confident integrating career content into their courses, and only 56 percent of teachers themselves are confident integrating career content into their courses.
- About 70 percent of parents who responded to the survey state that their students would benefit from more career-focused options in their schools; however, when educators are asked whether they think students and parents are interested in career-focused options, only 27 percent believe students are interested, and 24 percent believe parents are interested.

These projections and survey responses point clearly to a need for system-wide transformation of workforce education and training strategies and programs.

A Need for Greater Alignment and Attainment

To win the global competition for business investment and jobs, Ohio must develop and attract individuals with knowledge, skills, competencies and credentials that meet the needs of employers, especially those seeking to fill in-demand jobs. Of particular concern is the fact that Ohio currently has a substantial shortage of working-age adults with the degrees and credentials required to be successful in the labor market – in other words, a gap between employer expectations and worker capabilities.

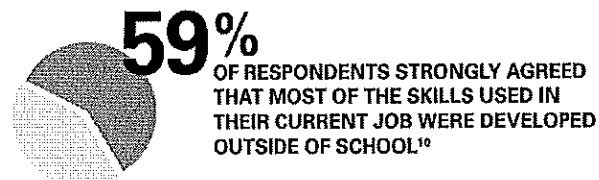
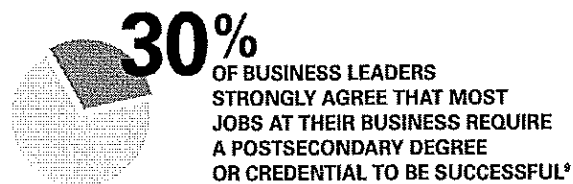
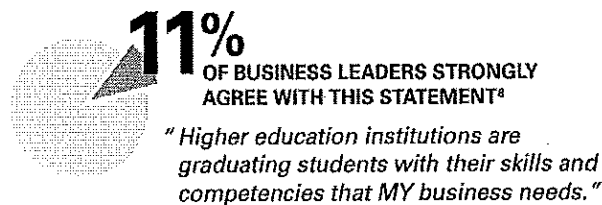
We face a large and serious challenge. According to the Georgetown Center on Education and the Workforce, 64 percent of Ohio jobs in 2020 will require postsecondary degrees or credentials.⁵ A new Lumina Foundation report shows, however, that just 43.2 percent of working-age adults in Ohio have a postsecondary certificate or degree,⁶ which is slightly below the nation's overall postsecondary attainment rate of 45.3 percent. To produce the number of highly skilled workers with postsecondary credentials required to meet the needs of employers, Ohio will need to produce, by 2025, an estimated 1.7 million more adults with high-quality postsecondary certificates or degrees.

It's a simple matter of supply and demand: Employers seek workers with specific knowledge, skills and competencies of value in the marketplace; unfortunately, employers tell us, many job-seekers lack those skills. This is true for large numbers of job-seekers entering the workforce, incumbent workers seeking to advance in their careers, and displaced workers whose skills may be outdated.

Consider, for example, that just 40 percent of employers believe recent college graduates are well prepared in skills critical for workplace success, including soft skills. Employers also give college graduates low scores for preparedness across learning outcomes. Students, on the other hand, think they are much better prepared for post-college success than employers do.⁷

Just 40 percent of employers believe recent college graduates are well prepared in skills critical for workforce success, including soft skills.

The disconnect between employer expectations and employee capabilities is not a new phenomenon. In 1998, for example, the Ohio Skill Gap Initiative, a joint venture of the Ohio Business Roundtable and the Ohio Department of Education, in cooperation with ACT, Inc., tested 14,000 Ohio high school graduates, using ACT's WorkKeys, and found just 1 in 14 or 7 percent ready for the workplace. In other words, we've been battling this issue for years, with unsatisfactory results.



Other more recent indicators of the expectations/capabilities disconnect include the following:

Gaps like these are widening. According to a 2016 McKinsey & Company study of more than 800 occupations, the continued growth of automation will drive substantial workforce changes over the next decade. Automation will likely result in very few occupations being eliminated entirely; however, it also likely will affect a portion of almost all jobs, in varying degrees. The McKinsey study attests that technologies available today could automate 45 percent of the activities that people are paid to perform and that about 60 percent of all occupations could see 30 percent or more of their component activities automated.¹¹

The December 2014 Workforce Integration Task Force Report concluded that Ohioans with disabilities often lack appropriate training opportunities to acquire the skills for in-demand occupations. The Task Force recommended the State of Ohio should ensure that in-demand occupational skills training be available and accessible to all Ohioans. In the same spirit, it is the intention and expectation of the Governor's Workforce Board that each of the training programs referenced and recommended throughout this report also be broadly accessible.

Strengthening Ohio's workforce development system is perhaps the most compelling economic imperative we face as a state. At stake is nothing less than Ohio's appeal to businesses across the globe seeking to locate, expand and invest – and Ohioans' future economic opportunity, prosperity and quality of life.

“... Based on current trends, there are potentially serious gaps in the supply of workers with the skills that will be needed to drive 21st century economies, and a growing supply of workers with more limited skills. Avoiding these imbalances (in both advanced and developing economies) and their consequences will require an unprecedented commitment to education and training.”¹²

Building on Recent Successes

Under Governor Kasich's leadership, Ohio has made great strides in ensuring that Ohio students have access to high-quality career preparation resources and that that schools, parents and students are properly incentivized to take advantage of those opportunities.

The recent partnership between the Ohio Department of Education and Opportunities for Ohioans with Disabilities (OOD) whereby OOD has embedded Vocational Rehabilitation Counselors into school districts will further the workforce system's ability to connect more students with disabilities to in-demand occupations, with guidance and counseling leading students to these career pathways.

Another example of committed collaboration to narrow Ohio's “talent gap” is the work of the Ohio Department of Education, the Ohio Department of Higher Education, and the Office of Workforce Transformation to convene stakeholders from K-12, higher education, workforce development, philanthropy and community partnerships to establish a formal Ohio Attainment Goal 2025:

“65 percent of Ohioans, ages 25-64, will have a degree, certificate or other postsecondary workforce credential of value in the workplace by 2025.”

It's clear that parents, educators and the business community are strongly motivated to ensure that students are prepared for successful careers. They recognize the positive changes ongoing at the state level and appreciate efforts to create a seamless, aligned system where students are prepared for their career paths, whether those paths include college degrees, industry credentials, apprenticeships, military enlistment, or a combination.

There is much work to be done in terms of communicating and building resources to help families connect with pathways, help businesses connect with schools, and help teachers connect with strategies to prepare their students for careers. The recommendations contained in this report have been proposed to assist in making these connections.

It Won't Be Easy

We need to make sure every Ohioan has the knowledge and skills needed to succeed in the workplace. This is a critical, must-have outcome for our businesses as well as for members of the state's workforce.

This creates an imperative to work together as a state to make sure businesses clearly communicate their workforce needs. Businesses must help shape training by forming partnerships with education institutions and government at all levels; playing a meaningful role in the development of curriculum, credentialing programs and work-based learning experiences; and working with education and training providers to match students with appropriate work-based learning experiences to help those entering or transitioning within the workforce get a better feel for career opportunities available to them.

Conversely, education providers, workforce development organizations, labor organizations and others must find ways to meet those employer needs. These diverse stakeholders must collaborate to develop education and training programs that will ensure a workforce capable of quickly adapting to new and evolving business needs.

We need to change the perception of career technical education so more students see specialized skills training as a viable pathway to success in college or careers.

In broad terms, we need a workforce development system that is not only aligned with employer needs but also with the realities of modern life and modern students.¹⁹ To achieve that objective, we also will need to change the perception of career technical education so more students see specialized skills training as a viable pathway to success in college or careers.

The Road Ahead

How well positioned are we in Ohio to respond to the workforce training challenge we face?

A diverse set of dynamics impacts our state's workforce development system. Currently, job training in Ohio is fragmented. Career and training providers, such as Ohio Technical Centers and OhioMeansJobs Centers, typically operate as silos. The broad and complex array of users with diverse needs makes it difficult to document and communicate resources and results. On top of these obstacles, the complexity of multiple agencies (at national, state and local levels) trying to address these issues adds another layer of difficulty.

We know we need to operate as an integrated, coherent system. We know we need to view our education, training and retraining programs as a centralized resource balanced with diverse, regional needs – and to provide greater visibility for the opportunities available through that resource. We know we need better occupational data, and we need to work more collaboratively to develop programs that truly meet business needs.

And, finally, we know this work needs to be a priority.

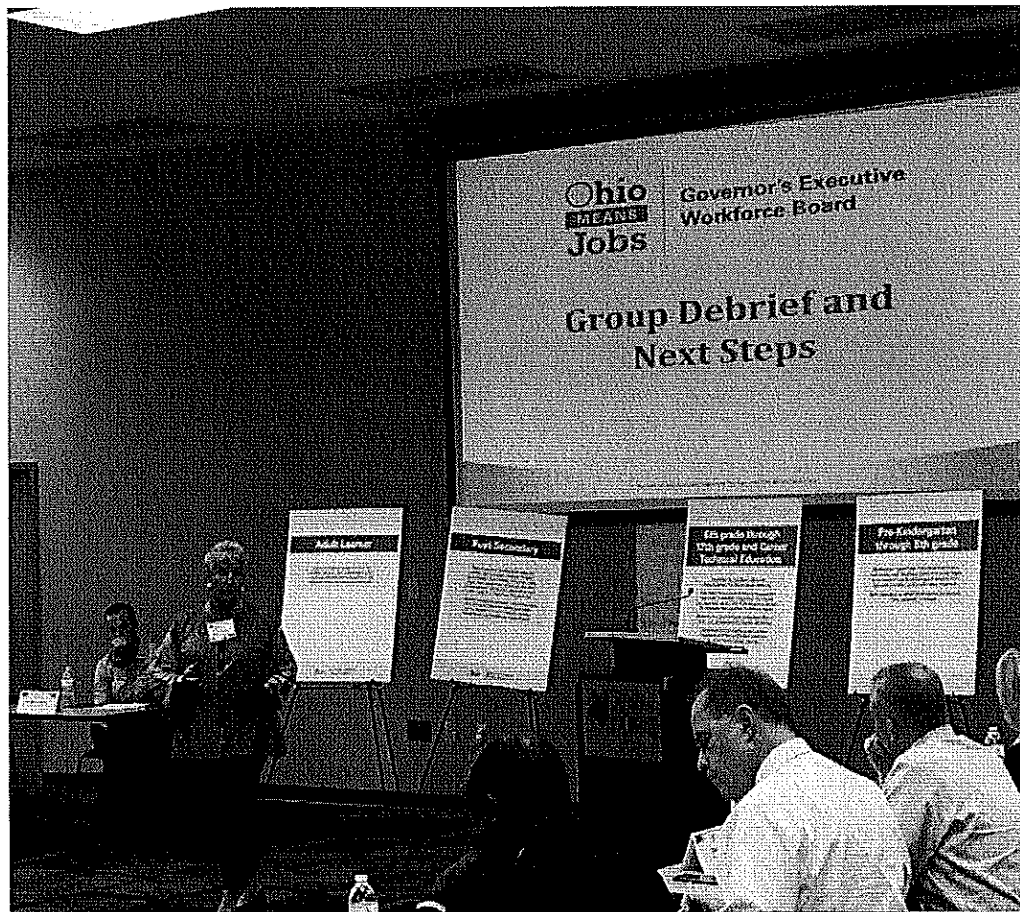
The Board shares Governor Kasich's vision of an education and workforce training system that ensures we have access to lifelong learning and the ability and flexibility to succeed in 5 to 10 jobs in a lifetime.

We understand that America has become a "knowledge nation" – and that we are moving forward, not in reverse. We are no longer making things the way we used to. Today we are making things with technology as a partner in raising productivity – because productivity is where the high value and high wages are to be found.

Through OhioMeansJobs.com, we've had some success connecting available jobs to people entering the workforce; looking ahead, we need to do an even better job of providing our entering, incumbent and displaced workers with the knowledge and skills they need to succeed, which in turn is what will help our businesses succeed.

As Governor Kasich noted in issuing his call to action to the Governor's Executive Workforce Board, what's important in the end is the value you represent when you enter the workforce. In a knowledge economy, if you have skills, you win; if you don't, you lose.

The workforce training challenge we face is about the very essence of opportunity in this great country and our great state. If we don't succeed in this quest, we'll be denying Ohio and its citizens great opportunities to move forward in a significant ways.



Process Overview

Work-Group Structure

The Board began its work with an exercise to identify the major gaps and challenges that exist in Ohio's workforce system today. To focus the Board's efforts, the Office of Workforce Transformation summarized the key gaps/challenges and categorized them into four groups that cross the lifetime learning continuum.

The Board then worked in groups each to develop recommendations for how to address specific gaps/challenges. To make most effective use of Board members' expertise, these work sessions were facilitated by LeanOhio staff. Subject matter experts from relevant state agencies also were on site to provide technical guidance and clarification.

Large-group discussion and several rounds of review and revision resulted in a consensus report of high-impact, high-scalability recommendations. The OWT project team, working collaboratively with board members and subject matter experts, then identified tactical initiatives that can be deployed to achieve each of the Board's recommendations. The result was this report, entitled Building Ohio's Future Workforce.

Criteria for Recommendations

The following guiding principles directed the Board's work to identify, assess and prioritize proposed solutions:

- **Recommendations must be scalable.** The greater the capacity and potential reach of the proposed solutions, the more likely transformative change will result.
- **Recommendations must have significant and lasting impact.** Because resources are limited, solutions must deliver maximum value and pay substantial dividends.
- **Recommendations must use data and research to confirm assumptions and solutions.** The stakes are so high that proposed actions must be grounded in empirical evidence, not simply theory.
- **Recommendations must be cost/budget neutral.** Scarce public dollars require strategic prioritizing and responsible stewardship of those dollars.

Common Themes

During the Board's deliberations on actionable recommendations for creating a more effective, efficient workforce development system, several common themes surfaced that should be noted here, as they helped frame the Board's thinking and spanned most working group topics of discussion.

- **Adopt a broader system perspective.** Board members consistently spoke of the need to view workforce education and training across a lifelong continuum. The more fully aligned, coordinated and comprehensive the various system components are, the more successful we will be in designing resources that meet the wide variety of system stakeholder needs.
- **Communicate and collaborate.** Repeatedly throughout the Board's deliberations participants pointed to examples of stakeholders' failure to communicate clearly, frequently and constructively on matters of specific needs, concerns, resources and opportunities. Most of these discussions concluded that formalizing various partnerships was one way to overcome common obstacles to maintaining ongoing meaningful dialogue.
- **Compile and share best practices and promising practices.** All working groups, and virtually all Board members, noted the vital need to do a better job of identifying, compiling and sharing documented best practices and promising practices. It was widely felt by participants that many great programs and practices exist in Ohio, and that a lack of coordinated sharing is the only thing preventing broader use and benefits across the state.
- **Repurposing existing resources.** One of the stated criteria for the Board's recommendations was that each recommendation must be budget/cost neutral. While this sometimes proved challenging in the brainstorming and discussion, Board members embraced the spirit of that specific criteria and offered many examples of where existing resources might be repurposed for greater benefit.

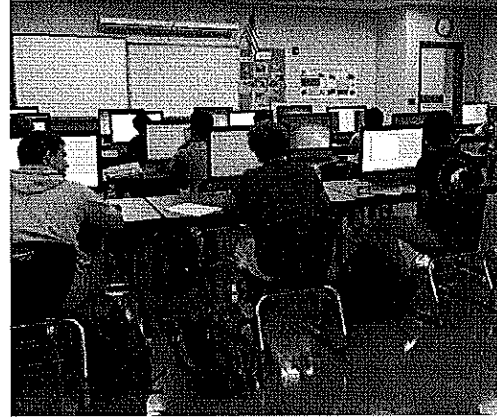
Recommendations

Problem Statement 1: A disconnect exists between school curricula and relevant, practical workplace skills, resulting in a gap between worker capabilities and employer expectations.

Recommendation 1A: Promote Local/Regional/State Collaboration

Promote collaboration of local chambers of commerce, regional economic development groups and JobsOhio with community colleges, Ohio Technical Centers and K-12 to align with the job demands of Ohio businesses.

- Require the Ohio Department of Higher Education, in collaboration with the Ohio Department of Education, to report annually to the Ohio General Assembly on Ohio's progress toward achieving the Ohio 2025 Attainment Goal of 65 percent of adult-age workers attaining affordable college degrees, industry certificates or other credentials of value to Ohio employers.
- Require the Ohio Department of Education and the Ohio Department of Higher Education to efficiently increase the articulation of career-technical education programs.
- Require the Office of Workforce Transformation to collaborate with JobsOhio to ensure that OWT strategies are closely aligned with specific occupations and competencies required by employers in JobsOhio's targeted industries.



Recommendation 1B: Require Schools to Offer Project-Based Learning

Require middle schools, high schools, community colleges, Ohio Technical Centers and universities to work with local businesses to offer project-based learning experiences that give students opportunities to solve authentic, real-world business problems.

- Require the Ohio Department of Education and the Ohio Department of Higher Education to work collaboratively with Ohio's major business organizations – Ohio Business Roundtable, Ohio Chamber of Commerce, Ohio Contractors Association, Ohio Manufacturers' Association, Ohio Council of Retail Merchants, NFIB-Ohio, and the Ohio Farm Bureau – to create a strategic plan for increasing project-based learning and develop professional development programs that address how to build authentic, real-world, project-based learning into the curriculum.

Recommendation 1C: Establish Regional Workforce Career Explorations and Counseling Collaborations

Establish regionally based Workforce Career Counseling Collaborations that make career counseling services available to middle school and high school students.

- Require the Ohio Department of Education, in coordination with the Ohio Department of Higher Education, to develop a Regional Workforce Career Counseling Collaboration model in which the JobsOhio Network, local chambers of commerce, local school districts, local businesses and others build county-level partnerships that provide career services to students. These services may include

job shadowing and internship experiences, career exploration activities, and problem-based curriculum developed around local employer needs. This will help ensure that students are placed in the best possible program, matched to their career interests and abilities, so they will be more likely to succeed. Washington County's Building Bridges to Careers program is a model of a collaborative program that provides robust career experiences to students in a cost-efficient manner by bringing together multiple school districts and employers.

Problem Statement 2: Educators are unsure of how to engage the business community regarding in-demand occupational needs, and businesses often are unclear about the best ways to share their workforce needs with educators and to engage them in identifying talent matched to businesses' needs and expectations.

Recommendation 2A: Increase Business Representation on Local School Boards
Increase efforts to establish and collaborate with local business and industry.

- Require local school boards to appoint three non-voting, ex officio members who represent local business interests.

Recommendation 2B: Require School Leader Engagement
Require school district superintendents and other district leaders to participate in local chambers of commerce and other business organizations and partnerships.

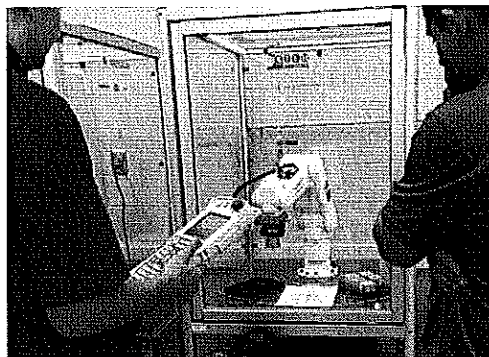
- Update current tools for evaluating school district superintendents to include engagement with area businesses as a performance metric.
- Revise Ohio's new school counselor standards to include engagement with businesses as a performance metric.

Problem Statement 3: Students do not have adequate opportunities for "work-based learning."

Recommendation 3A: Expand Business Engagement Opportunities
Increase business engagement opportunities with schools through student internships, co-ops, job shadowing, mentoring, tutoring, recognized apprenticeships and other opportunities for work-based learning.

- Promote and encourage the growth of successful programs such as Columbus's Christo Rey High School that integrate four years of rigorous college preparatory academics with four years of professional work experience through a "Corporate Work Study" model.
- Create a formalized "broker" position to help drive collaboration among local stakeholders, which could include local Chambers of Commerce and/or other economic development organizations.
- Require the Ohio Department of Education, in conjunction with the Governor's Office of Workforce Transformation and representatives from business organizations, to create an oversight body/ process to review and update, annually, the approved industry-recognized credential list required for graduation.
- Encourage all school districts to review their Ohio Credit Flexibility plans to identify additional opportunities for integrating meaningful, work-based learning experiences and internships/co-ops. By connecting learning to real-world situations and future jobs, credit flexibility can increase students' interest in school and motivation to learn.

- Include work-based learning and post-graduation job placement metrics on the Ohio School Report Cards and require a balanced report card for college and career readiness.
- Align recognized pre-apprenticeship programs within Ohio's College Credit Plus program, add recognized pre-apprenticeship as a pathway to graduation, and add recognized pre-apprenticeship certificate attainment to the "Prepared for Success" report card measurement.
- Create awareness within the business community about subminimum wage laws applicable to students enrolled in bona fide vocational training programs.



Recommendation 3B: Encourage Teacher Externships

Increase externship opportunities for all teachers.

- Require teachers' Individual Professional Development Plans to include teacher externship experiences.
- Require Ohio's Professional Educator and Counselor License Renewal requirements to include CEU credits earned for teacher externship experiences.

Problem Statement 4: Parents and students lack awareness of non-four-year, postsecondary degree pathways. Persistent misconceptions and related stigmas have further limited exposure to these viable career options.

Recommendation 4A: Create an Annual, Statewide "In-Demand Jobs Week"

Create an annual statewide "In-Demand Jobs Week" to raise awareness among educators, students and parents of high-demand job openings, job requirements and job benefits.

- Require the Governor's Office of Workforce Transformation, in coordination with the Ohio Department of Education, the Ohio Department of Higher Education and the Ohio Department of Job and Family Services, to organize an In-Demand Jobs Week. Among the activities for this week would be in-demand job fairs or tours of companies that have in-demand occupations as a way to connect middle and high school students with prospective employers.
- Require the Ohio Department of Education to develop an "OhioMeansJobs-Ready Certificate" for high school students who demonstrate their work-readiness by successfully exhibiting to-be-determined work ethic competencies (such as teamwork, problem-solving, reliability, punctuality, etc.) validated by no fewer than three teachers and/or business mentors and attaining at least four objective competencies – including community service and technology – before graduation.

Problem Statement 5: Early exposure to career possibilities for parents and students is limited.

Recommendation 5A: Create an E-Information and Resource Sharing Tool

Establish a communication tool to share success stories for replication by education/training providers and to facilitate resource sharing among all stakeholders.

- Create “one-stop” web resources that are available during non-work hours or school hours, categorized by stage of life or by category (e.g., mentoring), providing state-level information for educators, families and communities, including information focused on career readiness skills and links to OhioMeansJobs.com for parents.
- Leverage the proposed sharing tool to provide resources and technical assistance for promising practices in disability inclusion through “Universal Course Design” – a set of strategies and practices that make courses more accessible for students, especially those who speak a primary language other than English, are not academically prepared, go to school part-time and lead busy lives, or have disabilities.
- Enhance and expand efforts to make students and families more aware of the practice tests for the ACT, SAT, WorkKeys and others that are available free of charge on OhioMeansJobs.com.

Recommendation 5B: Foster Mentoring Relationships

Leverage existing relationships and programs to expand formal and informal, evidence-based mentoring relationships.

- Incorporate mentoring practices in the state’s Quality Rating and Improvement System for early education providers.
- Incorporate drug prevention messaging in schools. Part of ensuring that children are career and college ready involves sharing the importance of staying drug-free. Start Talking! is an initiative that gives parents, guardians, educators and community leaders the tools to start the conversation with Ohio’s elementary, middle and high school students about the importance of living healthy, drug-free lives. Schools should incorporate Start Talking! or other drug prevention messaging where appropriate.

Problem Statement 6: Businesses report that entry-level employees lack basic work-readiness skills that could begin to be taught in primary education and throughout the education system and mentoring programs.

Recommendation 6A: Leverage Effective Practices

Improve leveraging of financial resources by reallocating funds to replicate existing programs that have demonstrated effective, measurable outcomes.

- Monitor new evidence-based curriculum and assessment packages (“High Scope” and “The Creative Curriculum”), which contain social and behavioral lessons and are being offered by the Ohio Department of Job and Family Services and the Ohio Department of Education to publicly funded childcare and primary education providers.
- Strengthen professional development for childcare providers, which already focuses on Approaches to Learning and Social/Behavioral standards, by linking these important standards to career readiness.



Recommendation 6B: Formalize Career Exploration Partnerships

Formalize partnerships among businesses, communities, government and families to share and explore information about careers and how to prepare for them.

- Award extra points to childcare providers seeking a 4-star or 5-star rating in Ohio's Quality Rating and Improvement System for participating in community partnerships that engage businesses in sharing and promoting careers and exploring the kind of knowledge and skills needed to be successful.

Recommendation 6C: Focus Early on Employability and Career Readiness

Integrate the mission of employability and college/career readiness beginning early in life.

- Include career readiness as a core component of the State of Ohio's mission and guiding principles for primary education and development.
- Require programs to embed work-readiness skills into their standards.

Problem Statement 7: Postsecondary institutions allocate scarce and valuable funds to student remediation. This directs resources away from core programs, drives up the cost of education, and delays graduation and entry into the workforce for students.

Recommendation 7A: Provide Transition Classes

Provide "transition classes" to high school students with the highest need for remediation but also a strong desire to move onto postsecondary, to provide the extra instruction they need to be career-ready or college-ready upon graduation from high school.

- Consider implementing a statewide program like the Tennessee SAILS model, which allows high school seniors to complete remedial work through a blended learning curriculum developed through K-12 and higher education collaboration. The program has showed impressive results in graduating more students college-ready.
- Build on the success of programs such as Jobs for Ohio Graduates in serving the most at-risk youth in our state by helping these young people stay in high school through graduation; pursue postsecondary education; and ultimately secure quality, entry-level jobs leading to career advancement opportunities.

Recommendation 7B: Expand Co-requisite Remediation

Expand co-requisite remediation by allowing students in need of remediation to take credit-bearing courses, with extra support, enabling them to graduate sooner.

- Promote scalable expansion of co-requisite remediation at all of Ohio's public colleges and universities such as Wright State University and Lorain County Community College.
- Create more gateway mathematics and English courses that align to career goals and integrate workforce development and career development objectives such as programs at Rhodes State College (integrating career services in the school's Developmental Writing and English Composition courses) and Stark State College (developing alternative co-requisite remediation strategies and models for developmental courses in mathematics through the school's participation in the Ohio Mathematics Initiative).

Recommendation 7C: Invest in Early Redirection

Redirect students who are not progressing beyond remedial courses after a defined period of time to alternative pathways, with job-driven financial aid.

- Continue to grow programs that support early student career decision-making such as the successful collaboration between Shawnee State University, Southern State Community College and the Scioto County Career Technical Center. The Workforce Career Counselors proposed in Recommendation 1C would play a vital role in directing students to the right programs early on so remediation would not be necessary.

Problem Statement 8: Adult retraining programs are not widely known, often duplicative, not easily accessible (time/location), and reactive (after job loss has occurred).

Recommendation 8A: Create a State-Level Data Analytics Infrastructure

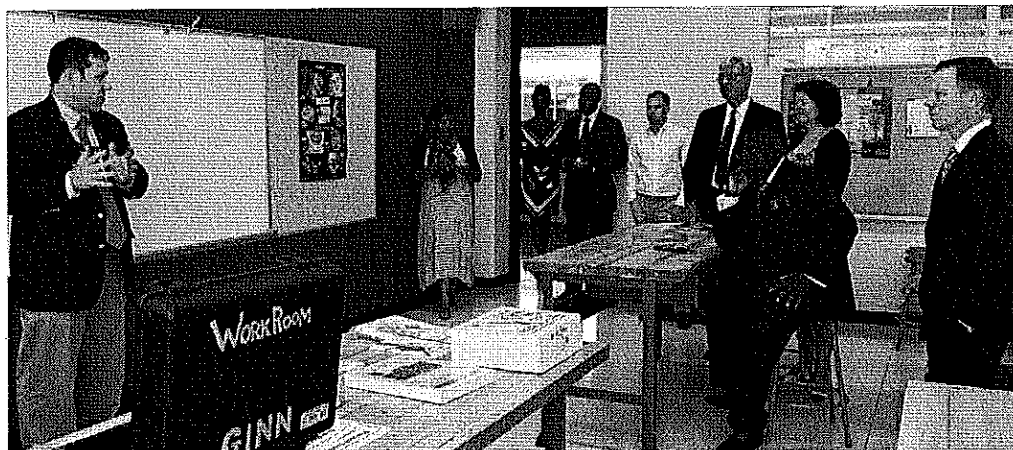
Enhance the existing, highly disjointed, state-level data analytics infrastructure to better coordinate work throughout the system and focus strategic initiatives on in-demand jobs and careers that are actionable on a local level.

- Enable state agencies to share data more efficiently, allowing providers to deliver a holistic approach to a jobseeker.
- Expand OhioMeansJobs.com capabilities by offering dynamic, interactive career pathways to middle school students, high school students and adult jobseekers.
- Utilize real-time demand and supply data compiled by the Ohio Department of Higher Education in fulfillment of obligations associated with State Workforce and Education Alignment Project (SWEAP) grants for aligning in-demand occupations with college curriculum and guiding jobseekers to employment opportunities for which they are qualified.
- Expand the number of in-demand occupations, as determined by the Governor's Office of Workforce Transformation, currently mapped by region and accessible via the OhioMeansJobs.com Workforce Supply Tool, to the full listing of in-demand occupations.
- Require the Governor's Office of Workforce Transformation, in conjunction with the Ohio Department of Job and Family Services, to conduct a biennial survey of in-demand occupations in Ohio.
- Require the Ohio Department of Education and the Ohio Department of Higher Education to establish design teams that leverage existing industry-led workforce partnerships to identify emerging skill needs based on predictive as well as real-time data analytics, and recommend innovations in education and training that respond to these trends.

Recommendation 8B: Enhance Ohio's Career Transition & Training Delivery System

Create a more comprehensive, integrated, career transition and training delivery system that assists jobseekers in getting started on a career pathway, delivering short-term, non-credit adult training that integrates industry-recognized credentials, is built upon dedicated career counseling/coaching services, and positions jobseekers for moving on to the next steps in their career pathway.

- Require the Ohio Department of Higher Education to collaborate with key sectors in Ohio's high-demand industries as well as public colleges, universities and Ohio Technical Centers to develop and implement strategies such as prior learning assessment that support increased attainment of postsecondary credentials by adults over age 25 for careers in in-demand jobs.
- Consolidate adult education programs currently within the Ohio Department of Higher Education and Ohio Department of Education into one agency to achieve greater coordination and results.
- Consolidate funding for Adult Education programs to allow for greater flexibility among programs.
- Require Adult Basic Literacy providers to apply for eligibility in the Workforce Inventory of Education and Training No. 16-02 with the Ohio Department of Job and Family Services to coordinate training services that focus on providing short-term certifications for those who fall below postsecondary aptitudes.
- Require ABE for adults who score below a 6th-grade level in reading and/or math on college and training program placement tests and accelerate learning that supports career pathways to in-demand jobs by setting state-level policies allowing co-enrollment in adult workforce training programs (i.e., career tech and adult diploma programs).
- Rebrand Ohio's public libraries as "Continuous Learning Centers" that serve as hubs for information about local in-demand jobs and relevant education and training resources. Additionally, bolster the Ohio Digital Library's online education resources to provide more accessible training materials to adult learners.
- Require OhioMeansJobs Centers to enter into memorandums of agreement with public libraries to facilitate collaboration and coordination of workforce development programs.
- Require uniform intake forms for adult training programs funded by the Workforce Innovation and Opportunity Act.
- Require the Ohio Department of Job and Family Services, in coordination with the Ohio Department of Education and the Ohio Department of Higher Education, to build an interactive portal within OhioMeansJobs.com that provides an automated referral service matching the job training needs of Ohio's businesses with training providers. This information would be made available to Career Technical Education, Ohio Technical Centers, and community colleges interested in bidding on providing the requested training services. Training providers who meet the needs outlined by Ohio businesses would be given priority access to the state's Workforce Revolving Loan Fund.
- Assess the impact of pilot programs that assist eligible unemployed and underemployed adults in overcoming employment barriers to the education, training and support resources they need to become skilled workers pursuing career and wage pathways – and determine feasibility of scaling up the program across Ohio.
- Encourage improvements to existing programs to increase their availability to individuals with disabilities and require that all newly developed programs are accessible to individuals with disabilities through reasonable accommodations.



Recommendation 8C: Foster a Statewide Learning Culture

Foster a statewide "learning culture" that is responsive to a dramatically changing workplace and promotes and supports lifelong learning.

- Require the Ohio Department of Job and Family Services to scale up the Work Ready Communities initiative to state level through a statewide competition among OhioMeansJobs Centers, driving up the number of communities across Ohio that have conducted ACT WorkKeys analysis and aiding job seekers and employers alike with information that will secure better employer-employee matches and drive economic growth.
- Create incentives – i.e., reduced sentences – for eligible incarcerated individuals in Ohio to receive their high school equivalency certificates.
- Require the Ohio Department of Higher Education to compile an inventory of non-credit certificate programs at Ohio colleges, universities and Ohio Technical Centers, and redirect state funding for programs that align with in-demand jobs and integrate industry-recognized credentials, to support adult learners in acquiring the skills needed for success in in-demand jobs.
- Expand eligibility of the Ohio National Guard Scholarship fund to include apprenticeship and short-term, in-demand certificate programs.
- Require the Governor's Office of Workforce Transformation, the Ohio Department of Job and Family Services and the Ohio Department of Higher Education to promote Western Governors University curriculum and capabilities, as well as other competency-based training resources in areas that align with Ohio's in-demand occupations, for working adults with some college or no degree and to employers seeking educational opportunities for their employees.
- Encourage continuous learning by offering online training services, such as Udacity, and shorter-term "boot camp" trainings to quickly respond to the needs of businesses.

Problem Statement 9: Promising practices throughout the state are inconsistently implemented.

Recommendation 9A: Develop methods/mechanisms for identifying, compiling and sharing best practices.

Continue to develop the Governor's Office of Workforce Transformation's website and social media venues in an effort to create awareness around promising practices.



A United Effort to Create a Brighter Future

Building Ohio's future workforce will be a major undertaking. It will require unwavering commitment, fresh new ways of thinking, and above all, unprecedented levels of collaboration among stakeholders. The pace and magnitude of technological change, along with the pressures and opportunities of a knowledge-based global economy, leave us with no other viable option.

If there is one thing the work of the Governor's Executive Workforce Board has revealed again and again, it's this: Businesses and educators must communicate with each other more often, more clearly and more candidly about their needs and expectations. Collaboration will be the key – to creating economic opportunity for our youth and adult workers, to strengthening the competitiveness of Ohio businesses, and to spurring economic growth and prosperity for all.

Governor Kasich charged the Board to "Identify ways to prepare and continuously retrain Ohioans of all ages for the jobs of today and tomorrow." We have embraced the Governor's charge, and we look forward to the next step in strengthening our state's workforce development system – i.e., incorporation of our proposed tactical options into the 2018–19 Executive Biennial Budget. We believe our recommendations will help ensure that Ohio businesses have access to a skilled and productive workforce, and that any improvements to the workforce development system will have business needs at the forefront.

We believe our recommendations will help ensure that Ohio businesses have access to a skilled and productive workforce, and that any improvements to the workforce development system will have business needs at the forefront.

Urgent action is needed for Ohio to thrive, and not merely survive, in the brave new world of global competition, technological advancement, manufacturing automation and lifelong learning. We simply cannot afford to delay.

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Bill Reineke
State Representative

Committees

Government Accountability and
Oversight - Vice Chair

Finance and Appropriations

Financial Institutions, Housing
and Urban Development

Ways and Means

Executive Appointments

Governor's Executive Workforce
Board - Board Member

December 5, 2017

Dear Workgroup Members:

Please accept my apology for being unavailable for tonight's meeting, however, I wanted to express my firm belief that option 4, the "Career Tech Program Pathway", should be made permanent.

I hope that before any decisions are made, regarding graduation requirements, that the recommendations of the Governor's Executive Workforce Board made in our "Future of Workforce" report are considered. We can no longer tolerate low graduation rates, high rates of remediation, and significant shortages of qualified, work-ready students.

The continuity of promoting career readiness must be maintained, which is what the Career Tech Program Pathway does. Furthermore, I have strong feelings that before reconfigurations are made to the current graduation requirements, we must address the major issue of school district's not even knowing there are three core pathways to graduation (let alone the 5 available for 2018).

Further thoughts will be reflected after follow-up discussions with the Director of the Governor's Office of Workforce Transformation.

Thank you for your consideration.

Sincerely,

A handwritten signature in cursive script that reads "Bill Reineke".

Bill Reineke

CC: Director Ryan Burgess
Governor's Office of Workforce Transformation

Earning the OhioMeansJobs-Readiness Seal

A Guide for Educators, Students and Families

The OhioMeansJobs-Readiness Seal

The 21st century workplace is constantly evolving. To ensure success in their careers, students must be prepared to engage in this rapidly changing environment. Ohio businesses are seeking talented workers who have professional skills required for success in the workplace. These skills include being reliable, drug free, personable, and able to solve problems and handle conflict.

Ohio's education system must identify and teach the professional skills that Ohioans need to be job-ready. When schools prepare students for the 21st century workplace, they also build the talented workforce that businesses need.

The OhioMeansJobs-Readiness Seal is a formal designation students can earn by demonstrating the professional skills that are required for success in the workplace. Students can earn the OhioMeansJobs-Readiness Seal by asking three or more mentors to validate that the student has demonstrated the professional skills that are valued by Ohio businesses.

The OhioMeansJobs-Readiness Seal distinguishes students who are prepared to contribute to the workplace and their communities. The seal indicates that the student has personal strengths, a strong work ethic and professional experience.

To earn the OhioMeansJobs-Readiness Seal, students must complete the following steps:

1. Become proficient* in 15 essential professional skills.
2. Using the OhioMeansJobs-Readiness Seal Form, record how he or she demonstrated each essential professional skill in at least two of three environments. The three possible environments are school, work or community. Three or more mentors must validate the form. Mentors are experienced advisors the student trusts. By signing the form, the mentor is recommending the student to his or her prospective employer or higher education provider. Students only are required to obtain a signature from one mentor per skill, but each student must demonstrate all the skills on the form.

To go above and beyond in preparation for career or college success, students may:

1. Ask mentors to write letters of recommendation. These can give the student an advantage when applying for jobs or to colleges.

***Proficient:** Has a deep understanding, can achieve a high standard routinely and take on responsibility for own work, deals with complex situations and decision-making with confidence, and sees overall, how individual actions influence outcome. (The Dryfus Model of Skill Acquisition, <http://devmts.org.uk/dreyfus.pdf>)

2. Create an OhioMeansJobs K-12 backpack. This will allow the student to explore the career planning resources available for free through OhioMeansJobs.com.

Professional Skills

To understand the skills required for success in the 21st century, the OhioMeansJobs-Readiness Seal team surveyed the business community. According to Ohio businesses, students and applicants must demonstrate proficiency in the following professional skills to be ready for work:

- **Drug Free** - The student commits to being drug free.
- **Reliability** - The student has integrity and accountability in professional settings.
- **Work Ethic** - The student has effective work habits, personal accountability and a determination to succeed.
- **Punctuality** - The student arrives to commitments on time and ready to contribute.

****Drug-Free:** Although commitment to being drug-free may not qualify as a “skill,” this quality is equally important to employers.

- **Discipline** - The student abides by guidelines, demonstrates self-control and stays on task.
- **Teamwork/Collaboration** - The student builds collaborative relationships with others and can work as part of a team.
- **Professionalism** - The student has integrity. He or she dresses and acts appropriately and responsibly. He or she learns from mistakes.
- **Learning Agility** - The student desires to continuously learn new information and skills.
- **Critical Thinking/Problem-Solving** - The student exercises strong decision-making skills, analyzes issues effectively and thinks creatively to overcome problems.
- **Leadership** - The student leverages the strengths of others to achieve common goals. He or she coaches and motivates peers and can prioritize and delegate work.
- **Creativity/Innovation** - The student is original and inventive. He or she communicates new ideas to others, drawing on knowledge from different fields to find solutions.
- **Oral and Written Communications** - The student articulates thoughts and ideas clearly and effectively in written and oral forms.
- **Digital Technology** - The student has an in-depth understanding of emerging technology and leverages technology to solve problems, complete tasks and accomplish goals.
- **Global/Intercultural Fluency** - The student values, respects and learns from diverse groups of people.
- **Career Management** - The student is a self-advocate. He or she articulates strengths, knowledge and experiences relevant to success in a job or postsecondary education.

Environments and Mentors:

School: The student demonstrates professional skills in a school environment during the school day and/or during extracurricular activities. School mentors include teachers, administrators, advisors, coaches and others. These activities are separate from work-based or community-based activities.

Work: The student demonstrates professional skills in a work environment. Work mentors include supervisors, hiring managers, experienced co-workers and others. These activities are separate from school-based or community-based activities.

Community: The student demonstrates professional skills in a community environment. Community mentors include volunteer coordinators, faith-based leaders and others. These activities are separate from school-based or work-based activities.

Students must choose mentors they worked with, activities they participated in and skills they demonstrated while in high school.

***Proficient:** Has a deep understanding, can achieve a high standard routinely and take on responsibility for own work, deals with complex situations and decision-making with confidence, and sees overall, how individual actions influence outcome. (The Dryfus Model of Skill Acquisition, <http://devmts.org.uk/dreyfus.pdf>)



Nick Jarrett (right), Coordinator of Robotics and Advanced Manufacturing, helps student Henry Gegorski, program a FANUC LR Mate 200i at Terra State (Fremont, Ohio).

Building Ohio's Future Workforce

Ohio

John R. Kasich, Governor

**Governor's Office of
Workforce Transformation**

Ryan D. Burgess, Director

The State of Ohio is an Equal Opportunity Employer and Provider of ADA Services



Governor's Executive Workforce Board

John R. Kasich, Governor of Ohio
R. Blane Walter, Chair

Governor's Executive Workforce Board

John R. Kasich
State of Ohio

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Technology Center

Vicki Giambrone
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Christina Hurr
Goodwill Easter Seals Miami Valley

Andrea Kramer
City Apparel/Go Grow Strategies

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MarkWest Energy Partners

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The Electrical Trades Center

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of Commerce

Albert B. Ratner
Forest City Enterprises, Inc.

Jamie Regg
General Electric Aviation

Bill Reinaka
Ohio House

Richard A. Stoff
Ohio Business Roundtable

David Whitehead
Cuyahoga Community College

Sandra Williams
Ohio Senate

David Wynn
BASF Corporation

Thomas F. Zenty III
University Hospitals

December 31, 2016

The Honorable John R. Kasich
Office of the Governor
77 South High Street, 30th Floor
Columbus, Ohio 43215

Dear Governor Kasich,

In September 2016, you challenged the Governor's Executive Workforce Board to work with the Office of Workforce Transformation to identify ways to prepare and continuously retrain Ohioans of all ages for the jobs of today and tomorrow.

Recognizing the importance of this charge and the dynamic needs of businesses in Ohio, the Board worked with the Office of Workforce Transformation and appropriate state agencies to determine the most prominent workforce challenges and corresponding recommendations to ensure Ohio's businesses have access to a skilled and productive workforce.

Board members sought feedback from local business, education, workforce and economic development leaders and the communities they represent to provide perspective and feedback that contribute to a number of issues that are affecting employers and job-seekers alike. The recommendations presented in the report will aim to address the overarching challenges with the goal of improving growth and prosperity for companies and individuals across Ohio.

All concepts in the report were developed with the following criteria in mind: recommendations must be scalable, have a significant and lasting impact, use data and research to support claims, and be cost and budget neutral. The attached report will outline recommended solutions for your consideration as we approach the FY18-19 Executive Biennial Budget.

Together, we share the common goal of breaking down barriers to employment, training, and education in Ohio. With your support and continuous collaboration with our local businesses and communities, we were able to rise to the challenge and identify ways to make Ohio an even better place to live and work.

Sincerely,

R. Blane Walter
Chair

Ryan D. Burgess
Director



Governor's Office of Workforce Transformation

In February 2012, Governor John Kasich issued an Executive Order creating the Governor's Office of Workforce Transformation (OWT) with the following mission:

To grow Ohio's economy by developing a skilled workforce, promoting effective training programs, and connecting Ohio employers with qualified workers.

The Governor also established the Governor's Executive Workforce Board, comprising business leaders and workforce development stakeholders, to guide the OWT's work and ensure that business needs are at the forefront of any improvements to the system.

Call to Action

As part of his ongoing search for transformative ideas to shape Ohio's workforce, Governor Kasich challenged the Governor's Executive Workforce Board to work with appropriate state agencies to respond to this charge:

Identify ways to prepare and continuously retrain Ohioans of all ages for the jobs of today and tomorrow.

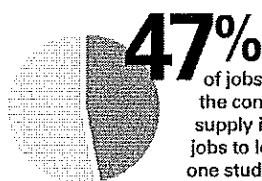
The purpose of this undertaking is to identify the most prominent challenges in early, secondary, postsecondary and adult education with the goal of identifying actionable solutions to ensure Ohio's businesses have access to a skilled and productive workforce. The near-term objective is to identify proposed actions and/or changes to be considered for incorporation into the Governor's FY18-19 Executive Biennial Budget.

Why Improvements Are Needed

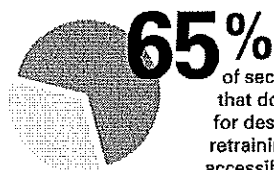
It's commonplace when discussing public policy needs and priorities to talk of "gaps" and related "imperatives." The focus of this report is on one of the most critical gaps and one of the highest-stakes imperatives we face as a state.

A Brave New World

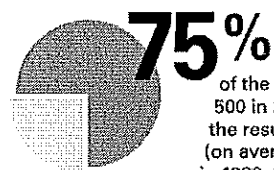
Ohioans must acknowledge that we're living in a brave new world of massive, rapid and often disruptive technological change and advancement, and that the jobs of tomorrow will be increasingly technology-heavy. Many of today's jobs were not even imagined 20 years ago. Following are a few indicators of the challenge Ohio faces to make sure every Ohioan has the knowledge and skills needed to succeed in the 21st century workplace, and every Ohio business can find the skilled, adaptable workers they need to compete and thrive globally:



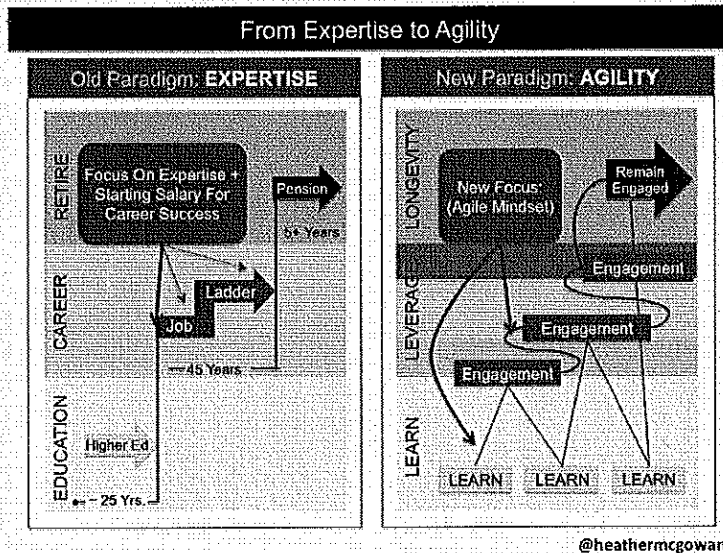
of jobs [total U.S. employment] could be phased out in the coming years due to technological advances. Labor supply is shifting from middle-income manufacturing jobs to low-income service occupations. According to one study, "... as technology races ahead, low-skill workers will reallocate to tasks that are non-susceptible to computerization – i.e., tasks requiring creative and social intelligence. For workers, to win the race, however, they will have to acquire creative and social skills.¹



of secondary students are predicted to work in jobs that do not yet exist. This creates a major challenge for designing curriculum in education, training and retraining programs, as well as a critical need for accessible, flexible, lifelong learning resources. We know, however, that most future jobs safe from the danger of automation will necessarily put a premium on skills such as the ability to think creatively and to find, frame and solve problems.²



of the companies expected to be listed on the S&P 500 in 2027 have yet to be established. This is in part the result of shrinking lifespans for companies, from (on average) 68 years on average in 1958, to 25 years in 1980, to 18 years in 2012.³



The Case for Design Learning

"Design learning" speaks to a potential shift in focus for future workforce education and training, from simply transferring existing knowledge to students to focusing on the processes of entrepreneurial learning and creativity:

"The truth is that we can no longer afford to focus on graduating learners armed only with predetermined skills and (already existing) knowledge. The workforce is becoming far too global, too digital, and increasingly too self-employed. We must instead refocus on cultivating creativity, to include not only problem solving, but also problem finding and problem framing. ...

"Design learning is a nascent field that should be codified and taught in schools as a capstone to learning – beginning as early as grade school. Rather than assuming the purpose of education is simply the transfer of fixed knowledge, design learning facilitates the development of the entrepreneurial dispositions and skills necessary to adapt to rapid social and technological change. Indeed, it is our view that education has to pivot from professional training to preparing individuals to innovate within new and emerging fields.

"Education has traditionally prepared individuals for work, but work is now changing too quickly for the latest professional skills to be readily translated into curriculum. The value of design learning is that it provides the right methodology for this changing reality. More important it mirrors the iterative learning and solution building that characterizes the world of work after schooling. ...

"Rather than transferring a fixed body of language and practices from experts to amateurs, design learning focuses instead on developing a learner's capacity to explore, make sense, and craft new innovation on their search for new opportunities. In this way, design learning is a core educational literacy that prepares individuals to creatively adapt to change."

Source: Daniel Araya and Heather McGowan, "Education and Accelerated Change: The Imperative for Design Learning," Brown Center Chalkboard, Brookings, September 9, 2016

Disconnect Between Business and Education

In a world where the majority of jobs are technology-intensive and require some level of technical knowledge and skills, career training is an even more important and more viable pathway to occupational success. However, disconnects do exist in the delivery of career education and training. For example, the New Skills for Youth Survey, a 2016 statewide poll of Ohioans conducted by the Ohio Department of Education (ODE) and drawing more than 12,000 responses, provided useful insights⁴ on stakeholder views of career education:

- The top reason students cite for not engaging in career-focused coursework is that they don't know enough about the options available to them. Educators feel like they are providing a wide range of options to students in terms of career preparation; conversely, students and parents don't feel as though children are receiving career preparation in school.
- Many K-5 teachers do not see career preparation as part of their jobs as educators. About 20 percent of K-5 teachers do not incorporate career preparation in their lessons, with many more indicating they teach primary grades, and careers should not be part of discussion at the primary school level.
- Only 39 percent of school and district administrators agree that teachers in their schools feel confident integrating career content into their courses, and only 56 percent of teachers themselves are confident integrating career content into their courses.
- About 70 percent of parents who responded to the survey state that their students would benefit from more career-focused options in their schools; however, when educators are asked whether they think students and parents are interested in career-focused options, only 27 percent believe students are interested, and 24 percent believe parents are interested.

These projections and survey responses point clearly to a need for system-wide transformation of workforce education and training strategies and programs.

A Need for Greater Alignment and Attainment

To win the global competition for business investment and jobs, Ohio must develop and attract individuals with knowledge, skills, competencies and credentials that meet the needs of employers, especially those seeking to fill in-demand jobs. Of particular concern is the fact that Ohio currently has a substantial shortage of working-age adults with the degrees and credentials required to be successful in the labor market – in other words, a gap between employer expectations and worker capabilities.

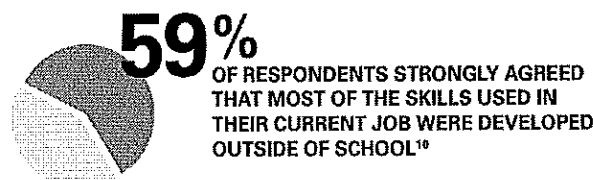
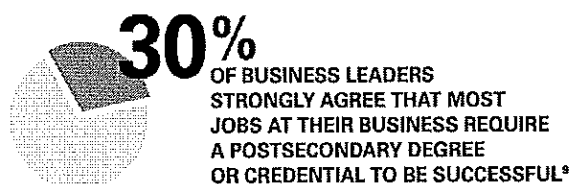
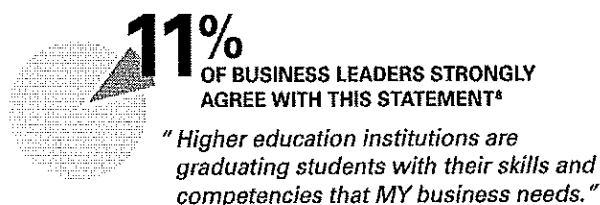
We face a large and serious challenge. According to the Georgetown Center on Education and the Workforce, 64 percent of Ohio jobs in 2020 will require postsecondary degrees or credentials.⁵ A new Lumina Foundation report shows, however, that just 43.2 percent of working-age adults in Ohio have a postsecondary certificate or degree,⁶ which is slightly below the nation's overall postsecondary attainment rate of 45.3 percent. To produce the number of highly skilled workers with postsecondary credentials required to meet the needs of employers, Ohio will need to produce, by 2025, an estimated 1.7 million more adults with high-quality postsecondary certificates or degrees.

It's a simple matter of supply and demand: Employers seek workers with specific knowledge, skills and competencies of value in the marketplace; unfortunately, employers tell us, many job-seekers lack those skills. This is true for large numbers of job-seekers entering the workforce, incumbent workers seeking to advance in their careers, and displaced workers whose skills may be outdated.

Consider, for example, that just 40 percent of employers believe recent college graduates are well prepared in skills critical for workplace success, including soft skills. Employers also give college graduates low scores for preparedness across learning outcomes. Students, on the other hand, think they are much better prepared for post-college success than employers do.⁷

Just 40 percent of employers believe recent college graduates are well prepared in skills critical for workforce success, including soft skills.

The disconnect between employer expectations and employee capabilities is not a new phenomenon. In 1998, for example, the Ohio Skill Gap Initiative, a joint venture of the Ohio Business Roundtable and the Ohio Department of Education, in cooperation with ACT, Inc., tested 14,000 Ohio high school graduates, using ACT's WorkKeys, and found just 1 in 14 or 7 percent ready for the workplace. In other words, we've been battling this issue for years, with unsatisfactory results.



Other more recent indicators of the expectations/capabilities disconnect include the following:

Gaps like these are widening. According to a 2016 McKinsey & Company study of more than 800 occupations, the continued growth of automation will drive substantial workforce changes over the next decade. Automation will likely result in very few occupations being eliminated entirely; however, it also likely will affect a portion of almost all jobs, in varying degrees. The McKinsey study attests that technologies available today could automate 45 percent of the activities that people are paid to perform and that about 60 percent of all occupations could see 30 percent or more of their component activities automated.¹¹

The December 2014 Workforce Integration Task Force Report concluded that Ohioans with disabilities often lack appropriate training opportunities to acquire the skills for in-demand occupations. The Task Force recommended the State of Ohio should ensure that in-demand occupational skills training be available and accessible to all Ohioans. In the same spirit, it is the intention and expectation of the Governor's Workforce Board that each of the training programs referenced and recommended throughout this report also be broadly accessible.

Strengthening Ohio's workforce development system is perhaps the most compelling economic imperative we face as a state. At stake is nothing less than Ohio's appeal to businesses across the globe seeking to locate, expand and invest – and Ohioans' future economic opportunity, prosperity and quality of life.

"... Based on current trends, there are potentially serious gaps in the supply of workers with the skills that will be needed to drive 21st century economies, and a growing supply of workers with more limited skills. Avoiding these imbalances (in both advanced and developing economies) and their consequences will require an unprecedented commitment to education and training."¹²

Building on Recent Successes

Under Governor Kasich's leadership, Ohio has made great strides in ensuring that Ohio students have access to high-quality career preparation resources and that that schools, parents and students are properly incentivized to take advantage of those opportunities.

The recent partnership between the Ohio Department of Education and Opportunities for Ohioans with Disabilities (OOD) whereby OOD has embedded Vocational Rehabilitation Counselors into school districts will further the workforce system's ability to connect more students with disabilities to in-demand occupations, with guidance and counseling leading students to these career pathways.

Another example of committed collaboration to narrow Ohio's "talent gap" is the work of the Ohio Department of Education, the Ohio Department of Higher Education, and the Office of Workforce Transformation to convene stakeholders from K-12, higher education, workforce development, philanthropy and community partnerships to establish a formal Ohio Attainment Goal 2025:

"65 percent of Ohioans, ages 25-64, will have a degree, certificate or other postsecondary workforce credential of value in the workplace by 2025."

It's clear that parents, educators and the business community are strongly motivated to ensure that students are prepared for successful careers. They recognize the positive changes ongoing at the state level and appreciate efforts to create a seamless, aligned system where students are prepared for their career paths, whether those paths include college degrees, industry credentials, apprenticeships, military enlistment, or a combination.

There is much work to be done in terms of communicating and building resources to help families connect with pathways, help businesses connect with schools, and help teachers connect with strategies to prepare their students for careers. The recommendations contained in this report have been proposed to assist in making these connections.

It Won't Be Easy

We need to make sure every Ohioan has the knowledge and skills needed to succeed in the workplace. This is a critical, must-have outcome for our businesses as well as for members of the state's workforce.

This creates an imperative to work together as a state to make sure businesses clearly communicate their workforce needs. Businesses must help shape training by forming partnerships with education institutions and government at all levels; playing a meaningful role in the development of curriculum, credentialing programs and work-based learning experiences; and working with education and training providers to match students with appropriate work-based learning experiences to help those entering or transitioning within the workforce get a better feel for career opportunities available to them.

Conversely, education providers, workforce development organizations, labor organizations and others must find ways to meet those employer needs. These diverse stakeholders must collaborate to develop education and training programs that will ensure a workforce capable of quickly adapting to new and evolving business needs.

We need to change the perception of career technical education so more students see specialized skills training as a viable pathway to success in college or careers.

In broad terms, we need a workforce development system that is not only aligned with employer needs but also with the realities of modern life and modern students.¹² To achieve that objective, we also will need to change the perception of career technical education so more students see specialized skills training as a viable pathway to success in college or careers.

The Road Ahead

How well positioned are we in Ohio to respond to the workforce training challenge we face?

A diverse set of dynamics impacts our state's workforce development system. Currently, job training in Ohio is fragmented. Career and training providers, such as Ohio Technical Centers and OhioMeansJobs Centers, typically operate as silos. The broad and complex array of users with diverse needs makes it difficult to document and communicate resources and results. On top of these obstacles, the complexity of multiple agencies (at national, state and local levels) trying to address these issues adds another layer of difficulty.

We know we need to operate as an integrated, coherent system. We know we need to view our education, training and retraining programs as a centralized resource balanced with diverse, regional needs – and to provide greater visibility for the opportunities available through that resource. We know we need better occupational data, and we need to work more collaboratively to develop programs that truly meet business needs.

And, finally, we know this work needs to be a priority.

The Board shares Governor Kasich's vision of an education and workforce training system that ensures we have access to lifelong learning and the ability and flexibility to succeed in 5 to 10 jobs in a lifetime.

We understand that America has become a "knowledge nation" – and that we are moving forward, not in reverse. We are no longer making things the way we used to. Today we are making things with technology as a partner in raising productivity – because productivity is where the high value and high wages are to be found.

Through OhioMeansJobs.com, we've had some success connecting available jobs to people entering the workforce; looking ahead, we need to do an even better job of providing our entering, incumbent and displaced workers with the knowledge and skills they need to succeed, which in turn is what will help our businesses succeed.

As Governor Kasich noted in issuing his call to action to the Governor's Executive Workforce Board, what's important in the end is the value you represent when you enter the workforce. In a knowledge economy, if you have skills, you win; if you don't, you lose.

The workforce training challenge we face is about the very essence of opportunity in this great country and our great state. If we don't succeed in this quest, we'll be denying Ohio and its citizens great opportunities to move forward in a significant ways.



Process Overview

Work-Group Structure

The Board began its work with an exercise to identify the major gaps and challenges that exist in Ohio's workforce system today. To focus the Board's efforts, the Office of Workforce Transformation summarized the key gaps/challenges and categorized them into four groups that cross the lifetime learning continuum.

The Board then worked in groups each to develop recommendations for how to address specific gaps/challenges. To make most effective use of Board members' expertise, these work sessions were facilitated by LeanOhio staff. Subject matter experts from relevant state agencies also were on site to provide technical guidance and clarification.

Large-group discussion and several rounds of review and revision resulted in a consensus report of high-impact, high-scalability recommendations. The OWT project team, working collaboratively with board members and subject matter experts, then identified tactical initiatives that can be deployed to achieve each of the Board's recommendations. The result was this report, entitled *Building Ohio's Future Workforce*.

Criteria for Recommendations

The following guiding principles directed the Board's work to identify, assess and prioritize proposed solutions:

- **Recommendations must be scalable.** The greater the capacity and potential reach of the proposed solutions, the more likely transformative change will result.
- **Recommendations must have significant and lasting impact.** Because resources are limited, solutions must deliver maximum value and pay substantial dividends.
- **Recommendations must use data and research to confirm assumptions and solutions.** The stakes are so high that proposed actions must be grounded in empirical evidence, not simply theory.
- **Recommendations must be cost/budget neutral.** Scarce public dollars require strategic prioritizing and responsible stewardship of those dollars.

Common Themes

During the Board's deliberations on actionable recommendations for creating a more effective, efficient workforce development system, several common themes surfaced that should be noted here, as they helped frame the Board's thinking and spanned most working group topics of discussion.

- **Adopt a broader system perspective.** Board members consistently spoke of the need to view workforce education and training across a lifelong continuum. The more fully aligned, coordinated and comprehensive the various system components are, the more successful we will be in designing resources that meet the wide variety of system stakeholder needs.
- **Communicate and collaborate.** Repeatedly throughout the Board's deliberations participants pointed to examples of stakeholders' failure to communicate clearly, frequently and constructively on matters of specific needs, concerns, resources and opportunities. Most of these discussions concluded that formalizing various partnerships was one way to overcome common obstacles to maintaining ongoing meaningful dialogue.
- **Compile and share best practices and promising practices.** All working groups, and virtually all Board members, noted the vital need to do a better job of identifying, compiling and sharing documented best practices and promising practices. It was widely felt by participants that many great programs and practices exist in Ohio, and that a lack of coordinated sharing is the only thing preventing broader use and benefits across the state.
- **Repurposing existing resources.** One of the stated criteria for the Board's recommendations was that each recommendation must be budget/cost neutral. While this sometimes proved challenging in the brainstorming and discussion, Board members embraced the spirit of that specific criteria and offered many examples of where existing resources might be repurposed for greater benefit.

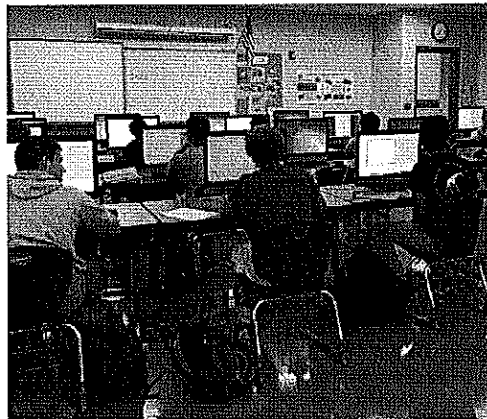
Recommendations

Problem Statement 1: A disconnect exists between school curricula and relevant, practical workplace skills, resulting in a gap between worker capabilities and employer expectations.

Recommendation 1A: Promote Local/Regional/State Collaboration

Promote collaboration of local chambers of commerce, regional economic development groups and JobsOhio with community colleges, Ohio Technical Centers and K-12 to align with the job demands of Ohio businesses.

- Require the Ohio Department of Higher Education, in collaboration with the Ohio Department of Education, to report annually to the Ohio General Assembly on Ohio's progress toward achieving the Ohio 2025 Attainment Goal of 65 percent of adult-age workers attaining affordable college degrees, industry certificates or other credentials of value to Ohio employers.
- Require the Ohio Department of Education and the Ohio Department of Higher Education to efficiently increase the articulation of career-technical education programs.
- Require the Office of Workforce Transformation to collaborate with JobsOhio to ensure that OWT strategies are closely aligned with specific occupations and competencies required by employers in JobsOhio's targeted industries.



Recommendation 1B: Require Schools to Offer Project-Based Learning

Require middle schools, high schools, community colleges, Ohio Technical Centers and universities to work with local businesses to offer project-based learning experiences that give students opportunities to solve authentic, real-world business problems.

- Require the Ohio Department of Education and the Ohio Department of Higher Education to work collaboratively with Ohio's major business organizations – Ohio Business Roundtable, Ohio Chamber of Commerce, Ohio Contractors Association, Ohio Manufacturers' Association, Ohio Council of Retail Merchants, NFIB-Ohio, and the Ohio Farm Bureau – to create a strategic plan for increasing project-based learning and develop professional development programs that address how to build authentic, real-world, project-based learning into the curriculum.

Recommendation 1C: Establish Regional Workforce Career Explorations and Counseling Collaborations

Establish regionally based Workforce Career Counseling Collaborations that make career counseling services available to middle school and high school students.

- Require the Ohio Department of Education, in coordination with the Ohio Department of Higher Education, to develop a Regional Workforce Career Counseling Collaboration model in which the JobsOhio Network, local chambers of commerce, local school districts, local businesses and others build county-level partnerships that provide career services to students. These services may include

job shadowing and internship experiences, career exploration activities, and problem-based curriculum developed around local employer needs. This will help ensure that students are placed in the best possible program, matched to their career interests and abilities, so they will be more likely to succeed. Washington County's Building Bridges to Careers program is a model of a collaborative program that provides robust career experiences to students in a cost-efficient manner by bringing together multiple school districts and employers.

Problem Statement 2: Educators are unsure of how to engage the business community regarding in-demand occupational needs, and businesses often are unclear about the best ways to share their workforce needs with educators and to engage them in identifying talent matched to businesses' needs and expectations.

Recommendation 2A: Increase Business Representation on Local School Boards

Increase efforts to establish and collaborate with local business and industry.

- Require local school boards to appoint three non-voting, ex officio members who represent local business interests.

Recommendation 2B: Require School Leader Engagement

Require school district superintendents and other district leaders to participate in local chambers of commerce and other business organizations and partnerships.

- Update current tools for evaluating school district superintendents to include engagement with area businesses as a performance metric.
- Revise Ohio's new school counselor standards to include engagement with businesses as a performance metric.

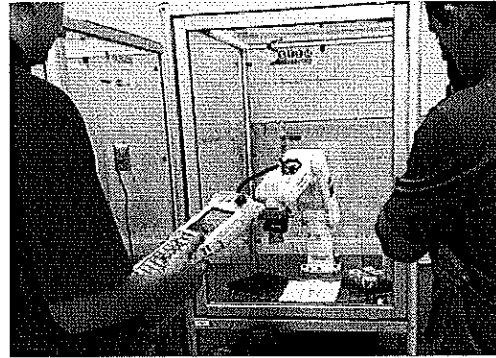
Problem Statement 3: Students do not have adequate opportunities for "work-based learning."

Recommendation 3A: Expand Business Engagement Opportunities

Increase business engagement opportunities with schools through student internships, co-ops, job shadowing, mentoring, tutoring, recognized apprenticeships and other opportunities for work-based learning.

- Promote and encourage the growth of successful programs such as Columbus's Christo Rey High School that integrate four years of rigorous college preparatory academics with four years of professional work experience through a "Corporate Work Study" model.
- Create a formalized "broker" position to help drive collaboration among local stakeholders, which could include local Chambers of Commerce and/or other economic development organizations.
- Require the Ohio Department of Education, in conjunction with the Governor's Office of Workforce Transformation and representatives from business organizations, to create an oversight body/ process to review and update, annually, the approved industry-recognized credential list required for graduation.
- Encourage all school districts to review their Ohio Credit Flexibility plans to identify additional opportunities for integrating meaningful, work-based learning experiences and internships/co-ops. By connecting learning to real-world situations and future jobs, credit flexibility can increase students' interest in school and motivation to learn.

- Include work-based learning and post-graduation job placement metrics on the Ohio School Report Cards and require a balanced report card for college and career readiness.
- Align recognized pre-apprenticeship programs within Ohio's College Credit Plus program, add recognized pre-apprenticeship as a pathway to graduation, and add recognized pre-apprenticeship certificate attainment to the "Prepared for Success" report card measurement.
- Create awareness within the business community about subminimum wage laws applicable to students enrolled in bona fide vocational training programs.



Recommendation 3B: Encourage Teacher Externships

Increase externship opportunities for all teachers.

- Require teachers' Individual Professional Development Plans to include teacher externship experiences.
- Require Ohio's Professional Educator and Counselor License Renewal requirements to include CEU credits earned for teacher externship experiences.

Problem Statement 4: Parents and students lack awareness of non-four-year, postsecondary degree pathways. Persistent misconceptions and related stigmas have further limited exposure to these viable career options.

Recommendation 4A: Create an Annual, Statewide "In-Demand Jobs Week"

Create an annual statewide "In-Demand Jobs Week" to raise awareness among educators, students and parents of high-demand job openings, job requirements and job benefits.

- Require the Governor's Office of Workforce Transformation, in coordination with the Ohio Department of Education, the Ohio Department of Higher Education and the Ohio Department of Job and Family Services, to organize an In-Demand Jobs Week. Among the activities for this week would be in-demand job fairs or tours of companies that have in-demand occupations as a way to connect middle and high school students with prospective employers.
- Require the Ohio Department of Education to develop an "OhioMeansJobs-Ready Certificate" for high school students who demonstrate their work-readiness by successfully exhibiting to-be-determined work ethic competencies (such as teamwork, problem-solving, reliability, punctuality, etc.) validated by no fewer than three teachers and/or business mentors and attaining at least four objective competencies – including community service and technology – before graduation.

Problem Statement 5: Early exposure to career possibilities for parents and students is limited.

Recommendation 5A: Create an E-Information and Resource Sharing Tool

Establish a communication tool to share success stories for replication by education/training providers and to facilitate resource sharing among all stakeholders.

- Create “one-stop” web resources that are available during non-work hours or school hours, categorized by stage of life or by category (e.g., mentoring), providing state-level information for educators, families and communities, including information focused on career readiness skills and links to OhioMeansJobs.com for parents.
- Leverage the proposed sharing tool to provide resources and technical assistance for promising practices in disability inclusion through “Universal Course Design” – a set of strategies and practices that make courses more accessible for students, especially those who speak a primary language other than English, are not academically prepared, go to school part-time and lead busy lives, or have disabilities.
- Enhance and expand efforts to make students and families more aware of the practice tests for the ACT, SAT, WorkKeys and others that are available free of charge on OhioMeansJobs.com.

Recommendation 5B: Foster Mentoring Relationships

Leverage existing relationships and programs to expand formal and informal, evidence-based mentoring relationships.

- Incorporate mentoring practices in the state’s Quality Rating and Improvement System for early education providers.
- Incorporate drug prevention messaging in schools. Part of ensuring that children are career and college ready involves sharing the importance of staying drug-free. Start Talking! is an initiative that gives parents, guardians, educators and community leaders the tools to start the conversation with Ohio’s elementary, middle and high school students about the importance of living healthy, drug-free lives. Schools should incorporate Start Talking! or other drug prevention messaging where appropriate.

Problem Statement 6: Businesses report that entry-level employees lack basic work-readiness skills that could begin to be taught in primary education and throughout the education system and mentoring programs.

Recommendation 6A: Leverage Effective Practices

Improve leveraging of financial resources by reallocating funds to replicate existing programs that have demonstrated effective, measurable outcomes.

- Monitor new evidence-based curriculum and assessment packages (“High Scope” and “The Creative Curriculum”), which contain social and behavioral lessons and are being offered by the Ohio Department of Job and Family Services and the Ohio Department of Education to publicly funded childcare and primary education providers.
- Strengthen professional development for childcare providers, which already focuses on Approaches to Learning and Social/Behavioral standards, by linking these important standards to career readiness.



Recommendation 6B: Formalize Career Exploration Partnerships

Formalize partnerships among businesses, communities, government and families to share and explore information about careers and how to prepare for them.

- Award extra points to childcare providers seeking a 4-star or 5-star rating in Ohio's Quality Rating and Improvement System for participating in community partnerships that engage businesses in sharing and promoting careers and exploring the kind of knowledge and skills needed to be successful.

Recommendation 6C: Focus Early on Employability and Career Readiness

Integrate the mission of employability and college/career readiness beginning early in life.

- Include career readiness as a core component of the State of Ohio's mission and guiding principles for primary education and development.
- Require programs to embed work-readiness skills into their standards.

Problem Statement 7: Postsecondary institutions allocate scarce and valuable funds to student remediation. This directs resources away from core programs, drives up the cost of education, and delays graduation and entry into the workforce for students.

Recommendation 7A: Provide Transition Classes

Provide "transition classes" to high school students with the highest need for remediation but also a strong desire to move onto postsecondary, to provide the extra instruction they need to be career-ready or college-ready upon graduation from high school.

- Consider implementing a statewide program like the Tennessee SAILS model, which allows high school seniors to complete remedial work through a blended learning curriculum developed through K-12 and higher education collaboration. The program has showed impressive results in graduating more students college-ready.
- Build on the success of programs such as Jobs for Ohio Graduates in serving the most at-risk youth in our state by helping these young people stay in high school through graduation; pursue postsecondary education; and ultimately secure quality, entry-level jobs leading to career advancement opportunities.

Recommendation 7B: Expand Co-requisite Remediation

Expand co-requisite remediation by allowing students in need of remediation to take credit-bearing courses, with extra support, enabling them to graduate sooner.

- Promote scalable expansion of co-requisite remediation at all of Ohio's public colleges and universities such as Wright State University and Lorain County Community College.
- Create more gateway mathematics and English courses that align to career goals and integrate workforce development and career development objectives such as programs at Rhodes State College (integrating career services in the school's Developmental Writing and English Composition courses) and Stark State College (developing alternative co-requisite remediation strategies and models for developmental courses in mathematics through the school's participation in the Ohio Mathematics Initiative).

Recommendation 7C: Invest in Early Redirection

Redirect students who are not progressing beyond remedial courses after a defined period of time to alternative pathways, with job-driven financial aid.

- Continue to grow programs that support early student career decision-making such as the successful collaboration between Shawnee State University, Southern State Community College and the Scioto County Career Technical Center. The Workforce Career Counselors proposed in Recommendation 1C would play a vital role in directing students to the right programs early on so remediation would not be necessary.

Problem Statement 8: Adult retraining programs are not widely known, often duplicative, not easily accessible (time/location), and reactive (after job loss has occurred).

Recommendation 8A: Create a State-Level Data Analytics Infrastructure

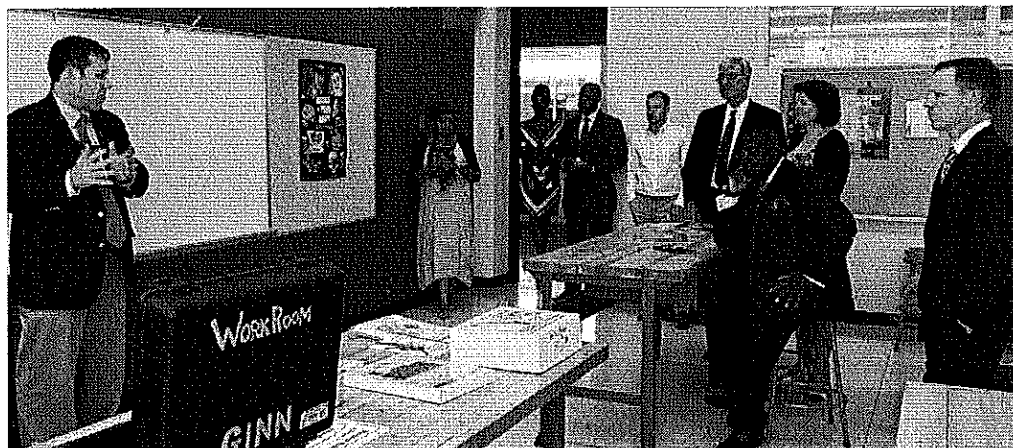
Enhance the existing, highly disjointed, state-level data analytics infrastructure to better coordinate work throughout the system and focus strategic initiatives on in-demand jobs and careers that are actionable on a local level.

- Enable state agencies to share data more efficiently, allowing providers to deliver a holistic approach to a jobseeker.
- Expand OhioMeansJobs.com capabilities by offering dynamic, interactive career pathways to middle school students, high school students and adult jobseekers.
- Utilize real-time demand and supply data compiled by the Ohio Department of Higher Education in fulfillment of obligations associated with State Workforce and Education Alignment Project (SWEAP) grants for aligning in-demand occupations with college curriculum and guiding jobseekers to employment opportunities for which they are qualified.
- Expand the number of in-demand occupations, as determined by the Governor's Office of Workforce Transformation, currently mapped by region and accessible via the OhioMeansJobs.com Workforce Supply Tool, to the full listing of in-demand occupations.
- Require the Governor's Office of Workforce Transformation, in conjunction with the Ohio Department of Job and Family Services, to conduct a biennial survey of in-demand occupations in Ohio.
- Require the Ohio Department of Education and the Ohio Department of Higher Education to establish design teams that leverage existing industry-led workforce partnerships to identify emerging skill needs based on predictive as well as real-time data analytics, and recommend innovations in education and training that respond to these trends.

Recommendation 8B: Enhance Ohio's Career Transition & Training Delivery System

Create a more comprehensive, integrated, career transition and training delivery system that assists jobseekers in getting started on a career pathway, delivering short-term, non-credit adult training that integrates industry-recognized credentials, is built upon dedicated career counseling/coaching services, and positions jobseekers for moving on to the next steps in their career pathway.

- Require the Ohio Department of Higher Education to collaborate with key sectors in Ohio's high-demand industries as well as public colleges, universities and Ohio Technical Centers to develop and implement strategies such as prior learning assessment that support increased attainment of postsecondary credentials by adults over age 25 for careers in in-demand jobs.
- Consolidate adult education programs currently within the Ohio Department of Higher Education and Ohio Department of Education into one agency to achieve greater coordination and results.
- Consolidate funding for Adult Education programs to allow for greater flexibility among programs.
- Require Adult Basic Literacy providers to apply for eligibility in the Workforce Inventory of Education and Training No. 16-02 with the Ohio Department of Job and Family Services to coordinate training services that focus on providing short-term certifications for those who fall below postsecondary aptitudes.
- Require ABE for adults who score below a 6th-grade level in reading and/or math on college and training program placement tests and accelerate learning that supports career pathways to in-demand jobs by setting state-level policies allowing co-enrollment in adult workforce training programs (i.e., career tech and adult diploma programs).
- Rebrand Ohio's public libraries as "Continuous Learning Centers" that serve as hubs for information about local in-demand jobs and relevant education and training resources. Additionally, bolster the Ohio Digital Library's online education resources to provide more accessible training materials to adult learners.
- Require OhioMeansJobs Centers to enter into memorandums of agreement with public libraries to facilitate collaboration and coordination of workforce development programs.
- Require uniform intake forms for adult training programs funded by the Workforce Innovation and Opportunity Act.
- Require the Ohio Department of Job and Family Services, in coordination with the Ohio Department of Education and the Ohio Department of Higher Education, to build an interactive portal within OhioMeansJobs.com that provides an automated referral service matching the job training needs of Ohio's businesses with training providers. This information would be made available to Career Technical Education, Ohio Technical Centers, and community colleges interested in bidding on providing the requested training services. Training providers who meet the needs outlined by Ohio businesses would be given priority access to the state's Workforce Revolving Loan Fund.
- Assess the impact of pilot programs that assist eligible unemployed and underemployed adults in overcoming employment barriers to the education, training and support resources they need to become skilled workers pursuing career and wage pathways – and determine feasibility of scaling up the program across Ohio.
- Encourage improvements to existing programs to increase their availability to individuals with disabilities and require that all newly developed programs are accessible to individuals with disabilities through reasonable accommodations.



Recommendation 8C: Foster a Statewide Learning Culture

Foster a statewide “learning culture” that is responsive to a dramatically changing workplace and promotes and supports lifelong learning.

- Require the Ohio Department of Job and Family Services to scale up the Work Ready Communities initiative to state level through a statewide competition among OhioMeansJobs Centers, driving up the number of communities across Ohio that have conducted ACT WorkKeys analysis and aiding job seekers and employers alike with information that will secure better employer-employee matches and drive economic growth.
- Create incentives – i.e., reduced sentences – for eligible incarcerated individuals in Ohio to receive their high school equivalency certificates.
- Require the Ohio Department of Higher Education to compile an inventory of non-credit certificate programs at Ohio colleges, universities and Ohio Technical Centers, and redirect state funding for programs that align with in-demand jobs and integrate industry-recognized credentials, to support adult learners in acquiring the skills needed for success in in-demand jobs.
- Expand eligibility of the Ohio National Guard Scholarship fund to include apprenticeship and short-term, in-demand certificate programs.
- Require the Governor’s Office of Workforce Transformation, the Ohio Department of Job and Family Services and the Ohio Department of Higher Education to promote Western Governors University curriculum and capabilities, as well as other competency-based training resources in areas that align with Ohio’s in-demand occupations, for working adults with some college or no degree and to employers seeking educational opportunities for their employees.
- Encourage continuous learning by offering online training services, such as Udacity, and shorter-term “boot camp” trainings to quickly respond to the needs of businesses.

Problem Statement 9: Promising practices throughout the state are inconsistently implemented.

Recommendation 9A: Develop methods/mechanisms for identifying, compiling and sharing best practices.

Continue to develop the Governor’s Office of Workforce Transformation’s website and social media venues in an effort to create awareness around promising practices.



A United Effort to Create a Brighter Future

Building Ohio's future workforce will be a major undertaking. It will require unwavering commitment, fresh new ways of thinking, and above all, unprecedented levels of collaboration among stakeholders. The pace and magnitude of technological change, along with the pressures and opportunities of a knowledge-based global economy, leave us with no other viable option.

If there is one thing the work of the Governor's Executive Workforce Board has revealed again and again, it's this: Businesses and educators must communicate with each other more often, more clearly and more candidly about their needs and expectations. Collaboration will be the key – to creating economic opportunity for our youth and adult workers, to strengthening the competitiveness of Ohio businesses, and to spurring economic growth and prosperity for all.

Governor Kasich charged the Board to "Identify ways to prepare and continuously retrain Ohioans of all ages for the jobs of today and tomorrow." We have embraced the Governor's charge, and we look forward to the next step in strengthening our state's workforce development system – i.e., incorporation of our proposed tactical options into the 2018–19 Executive Biennial Budget. We believe our recommendations will help ensure that Ohio businesses have access to a skilled and productive workforce, and that any improvements to the workforce development system will have business needs at the forefront.

We believe our recommendations will help ensure that Ohio businesses have access to a skilled and productive workforce, and that any improvements to the workforce development system will have business needs at the forefront.

Urgent action is needed for Ohio to thrive, and not merely survive, in the brave new world of global competition, technological advancement, manufacturing automation and lifelong learning. We simply cannot afford to delay.

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Bill Reineke
State Representative

Committees

Government Accountability and
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Finance and Appropriations

Financial Institutions, Housing
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Ways and Means

Executive Appointments

Governor's Executive Workforce
Board - Board Member

December 5, 2017

Dear Workgroup Members:

Please accept my apology for being unavailable for tonight's meeting, however, I wanted to express my firm belief that option 4, the "Career Tech Program Pathway", should be made permanent.

I hope that before any decisions are made, regarding graduation requirements, that the recommendations of the Governor's Executive Workforce Board made in our "Future of Workforce" report are considered. We can no longer tolerate low graduation rates, high rates of remediation, and significant shortages of qualified, work-ready students.

The continuity of promoting career readiness must be maintained, which is what the Career Tech Program Pathway does. Furthermore, I have strong feelings that before reconfigurations are made to the current graduation requirements, we must address the major issue of school district's not even knowing there are three core pathways to graduation (let alone the 5 available for 2018).

Further thoughts will be reflected after follow-up discussions with the Director of the Governor's Office of Workforce Transformation.

Thank you for your consideration.

Sincerely,

A handwritten signature in cursive script that reads "Bill Reineke".
Bill Reineke

CC: Director Ryan Burgess
Governor's Office of Workforce Transformation

Earning the OhioMeansJobs-Readiness Seal

A Guide for Educators, Students and Families

The OhioMeansJobs-Readiness Seal

The 21st century workplace is constantly evolving. To ensure success in their careers, students must be prepared to engage in this rapidly changing environment. Ohio businesses are seeking talented workers who have professional skills required for success in the workplace. These skills include being reliable, drug free, personable, and able to solve problems and handle conflict.

Ohio's education system must identify and teach the professional skills that Ohioans need to be job-ready. When schools prepare students for the 21st century workplace, they also build the talented workforce that businesses need.

The OhioMeansJobs-Readiness Seal is a formal designation students can earn by demonstrating the professional skills that are required for success in the workplace. Students can earn the OhioMeansJobs-Readiness Seal by asking three or more mentors to validate that the student has demonstrated the professional skills that are valued by Ohio businesses.

The OhioMeansJobs-Readiness Seal distinguishes students who are prepared to contribute to the workplace and their communities. The seal indicates that the student has personal strengths, a strong work ethic and professional experience.

To earn the OhioMeansJobs-Readiness Seal, students must complete the following steps:

1. Become proficient* in 15 essential professional skills.
2. Using the OhioMeansJobs-Readiness Seal Form, record how he or she demonstrated each essential professional skill in at least two of three environments. The three possible environments are school, work or community. Three or more mentors must validate the form. Mentors are experienced advisors the student trusts. By signing the form, the mentor is recommending the student to his or her prospective employer or higher education provider. Students only are required to obtain a signature from one mentor per skill, but each student must demonstrate all the skills on the form.

To go above and beyond in preparation for career or college success, students may:

1. Ask mentors to write letters of recommendation. These can give the student an advantage when applying for jobs or to colleges.

***Proficient:** Has a deep understanding, can achieve a high standard routinely and take on responsibility for own work, deals with complex situations and decision-making with confidence, and sees overall, how individual actions influence outcome. (The Dryfus Model of Skill Acquisition, <http://devmts.org.uk/dreyfus.pdf>)

2. Create an OhioMeansJobs K-12 backpack. This will allow the student to explore the career planning resources available for free through OhioMeansJobs.com.

Professional Skills

To understand the skills required for success in the 21st century, the OhioMeansJobs-Readiness Seal team surveyed the business community. According to Ohio businesses, students and applicants must demonstrate proficiency in the following professional skills to be ready for work:

- **Drug Free** - The student commits to being drug free.
- **Reliability** - The student has integrity and accountability in professional settings.
- **Work Ethic** - The student has effective work habits, personal accountability and a determination to succeed.
- **Punctuality** - The student arrives to commitments on time and ready to contribute.

****Drug-Free:** Although commitment to being drug-free may not qualify as a “skill,” this quality is equally important to employers.

- **Discipline** - The student abides by guidelines, demonstrates self-control and stays on task.
- **Teamwork/Collaboration** - The student builds collaborative relationships with others and can work as part of a team.
- **Professionalism** - The student has integrity. He or she dresses and acts appropriately and responsibly. He or she learns from mistakes.
- **Learning Agility** - The student desires to continuously learn new information and skills.
- **Critical Thinking/Problem-Solving** - The student exercises strong decision-making skills, analyzes issues effectively and thinks creatively to overcome problems.
- **Leadership** - The student leverages the strengths of others to achieve common goals. He or she coaches and motivates peers and can prioritize and delegate work.
- **Creativity/Innovation** - The student is original and inventive. He or she communicates new ideas to others, drawing on knowledge from different fields to find solutions.
- **Oral and Written Communications** - The student articulates thoughts and ideas clearly and effectively in written and oral forms.
- **Digital Technology** - The student has an in-depth understanding of emerging technology and leverages technology to solve problems, complete tasks and accomplish goals.
- **Global/Intercultural Fluency** - The student values, respects and learns from diverse groups of people.
- **Career Management** - The student is a self-advocate. He or she articulates strengths, knowledge and experiences relevant to success in a job or postsecondary education.

Environments and Mentors:

School: The student demonstrates professional skills in a school environment during the school day and/or during extracurricular activities. School mentors include teachers, administrators, advisors, coaches and others. These activities are separate from work-based or community-based activities.

Work: The student demonstrates professional skills in a work environment. Work mentors include supervisors, hiring managers, experienced co-workers and others. These activities are separate from school-based or community-based activities.

Community: The student demonstrates professional skills in a community environment. Community mentors include volunteer coordinators, faith-based leaders and others. These activities are separate from school-based or work-based activities.

Students must choose mentors they worked with, activities they participated in and skills they demonstrated while in high school.

***Proficient:** Has a deep understanding, can achieve a high standard routinely and take on responsibility for own work, deals with complex situations and decision-making with confidence, and sees overall, how individual actions influence outcome. (The Dryfus Model of Skill Acquisition, <http://devmts.org.uk/dreyfus.pdf>)



Nick Jarrett (Right), Coordinator of Robotics and Advanced Manufacturing, helps student Henry Gegorski, program a FANUC LR Mate 200i at Terra State (Fremont, Ohio).

Building Ohio's Future Workforce

Ohio

John R. Kasich, Governor

**Governor's Office of
Workforce Transformation**

Ryan D. Burgess, Director

The State of Ohio is an Equal Opportunity Employer and Provider of ADA Services



Governor's Executive Workforce Board

John R. Kasich, Governor of Ohio
R. Blane Walter, Chair

Governor's Executive Workforce Board

John R. Kasich
State of Ohio

R. Blane Walter (Chair)
Talisman Capital Partners

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International Union of
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Ohio Department of Job and
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Dennis Franks
Pickaway-Rose Career and
Technology Center

Vicki Giambrosio
CBD Advisors

Christina Hurr
Goodwill Easter Seals Miami Valley

Andrea Kramer
City Apparel/Go Grow Strategies

Dave LeDonne
MarkWest Energy Partners

Stephen Lipster
The Electrical Trades Center

Kevin Miller
Opportunities for Ohioans
with Disabilities

Phillip L. Parker
Dayton Area Chamber
of Commerce

Albert B. Ratner
Forest City Enterprises, Inc.

Jamie Regg
General Electric Aviation

Bill Roineke
Ohio House

Richard A. Stoff
Ohio Business Roundtable

David Whitehead
Cuyahoga Community College

Sandra Williams
Ohio Senate

David Wynn
BASF Corporation

Thomas F. Zenty III
University Hospitals

December 31, 2016

The Honorable John R. Kasich
Office of the Governor
77 South High Street, 30th Floor
Columbus, Ohio 43215

Dear Governor Kasich,

In September 2016, you challenged the Governor's Executive Workforce Board to work with the Office of Workforce Transformation to identify ways to prepare and continuously retrain Ohioans of all ages for the jobs of today and tomorrow.

Recognizing the importance of this charge and the dynamic needs of businesses in Ohio, the Board worked with the Office of Workforce Transformation and appropriate state agencies to determine the most prominent workforce challenges and corresponding recommendations to ensure Ohio's businesses have access to a skilled and productive workforce.

Board members sought feedback from local business, education, workforce and economic development leaders and the communities they represent to provide perspective and feedback that contribute to a number of issues that are affecting employers and job-seekers alike. The recommendations presented in the report will aim to address the overarching challenges with the goal of improving growth and prosperity for companies and individuals across Ohio.

All concepts in the report were developed with the following criteria in mind: recommendations must be scalable, have a significant and lasting impact, use data and research to support claims, and be cost and budget neutral. The attached report will outline recommended solutions for your consideration as we approach the FY18-19 Executive Biennial Budget.

Together, we share the common goal of breaking down barriers to employment, training, and education in Ohio. With your support and continuous collaboration with our local businesses and communities, we were able to rise to the challenge and identify ways to make Ohio an even better place to live and work.

Sincerely,

R. Blane Walter
Chair

Ryan D. Burgess
Director



Governor's Office of Workforce Transformation

In February 2012, Governor John Kasich issued an Executive Order creating the Governor's Office of Workforce Transformation (OWT) with the following mission:

To grow Ohio's economy by developing a skilled workforce, promoting effective training programs, and connecting Ohio employers with qualified workers.

The Governor also established the Governor's Executive Workforce Board, comprising business leaders and workforce development stakeholders, to guide the OWT's work and ensure that business needs are at the forefront of any improvements to the system.

Call to Action

As part of his ongoing search for transformative ideas to shape Ohio's workforce, Governor Kasich challenged the Governor's Executive Workforce Board to work with appropriate state agencies to respond to this charge:

Identify ways to prepare and continuously retrain Ohioans of all ages for the jobs of today and tomorrow.

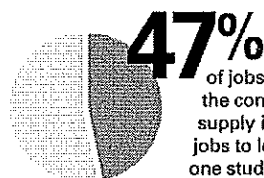
The purpose of this undertaking is to identify the most prominent challenges in early, secondary, postsecondary and adult education with the goal of identifying actionable solutions to ensure Ohio's businesses have access to a skilled and productive workforce. The near-term objective is to identify proposed actions and/or changes to be considered for incorporation into the Governor's FY18-19 Executive Biennial Budget.

Why Improvements Are Needed

It's commonplace when discussing public policy needs and priorities to talk of "gaps" and related "imperatives." The focus of this report is on one of the most critical gaps and one of the highest-stakes imperatives we face as a state.

A Brave New World

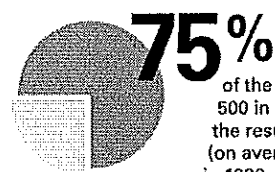
Ohioans must acknowledge that we're living in a brave new world of massive, rapid and often disruptive technological change and advancement, and that the jobs of tomorrow will be increasingly technology-heavy. Many of today's jobs were not even imagined 20 years ago. Following are a few indicators of the challenge Ohio faces to make sure every Ohioan has the knowledge and skills needed to succeed in the 21st century workplace, and every Ohio business can find the skilled, adaptable workers they need to compete and thrive globally:



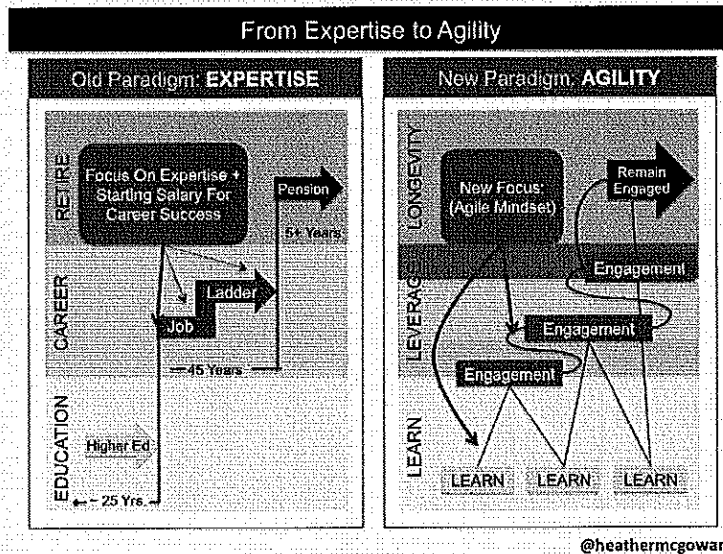
of jobs [total U.S. employment] could be phased out in the coming years due to technological advances. Labor supply is shifting from middle-income manufacturing jobs to low-income service occupations. According to one study, "... as technology races ahead, low-skill workers will reallocate to tasks that are non-susceptible to computerization -- i.e., tasks requiring creative and social intelligence. For workers, to win the race, however, they will have to acquire creative and social skills.¹



of secondary students are predicted to work in jobs that do not yet exist. This creates a major challenge for designing curriculum in education, training and retraining programs, as well as a critical need for accessible, flexible, lifelong learning resources. We know, however, that most future jobs safe from the danger of automation will necessarily put a premium on skills such as the ability to think creatively and to find, frame and solve problems.²



of the companies expected to be listed on the S&P 500 in 2027 have yet to be established. This is in part the result of shrinking lifespans for companies, from (on average) 68 years on average in 1958, to 25 years in 1980, to 18 years in 2012.³



The Case for Design Learning

"Design learning" speaks to a potential shift in focus for future workforce education and training, from simply transferring existing knowledge to students to focusing on the processes of entrepreneurial learning and creativity:

"The truth is that we can no longer afford to focus on graduating learners armed only with predetermined skills and (already existing) knowledge. The workforce is becoming far too global, too digital, and increasingly too self-employed. We must instead refocus on cultivating creativity, to include not only problem solving, but also problem finding and problem framing. ...

"Design learning is a nascent field that should be codified and taught in schools as a capstone to learning – beginning as early as grade school. Rather than assuming the purpose of education is simply the transfer of fixed knowledge, design learning facilitates the development of the entrepreneurial dispositions and skills necessary to adapt to rapid social and technological change. Indeed, it is our view that education has to pivot from professional training to preparing individuals to innovate within new and emerging fields.

"Education has traditionally prepared individuals for work, but work is now changing too quickly for the latest professional skills to be readily translated into curriculum. The value of design learning is that it provides the right methodology for this changing reality. More important it mirrors the iterative learning and solution building that characterizes the world of work after schooling. ...

"Rather than transferring a fixed body of language and practices from experts to amateurs, design learning focuses instead on developing a learner's capacity to explore, make sense, and craft new innovation on their search for new opportunities. In this way, design learning is a core educational literacy that prepares individuals to creatively adapt to change."

Source: Daniel Araya and Heather McGowan, "Education and Accelerated Change: The Imperative for Design Learning," Brown Center Chalkboard, Brookings, September 9, 2016

Disconnect Between Business and Education

In a world where the majority of jobs are technology-intensive and require some level of technical knowledge and skills, career training is an even more important and more viable pathway to occupational success. However, disconnects do exist in the delivery of career education and training. For example, the New Skills for Youth Survey, a 2016 statewide poll of Ohioans conducted by the Ohio Department of Education (ODE) and drawing more than 12,000 responses, provided useful insights⁴ on stakeholder views of career education:

- The top reason students cite for not engaging in career-focused coursework is that they don't know enough about the options available to them. Educators feel like they are providing a wide range of options to students in terms of career preparation; conversely, students and parents don't feel as though children are receiving career preparation in school.
- Many K-5 teachers do not see career preparation as part of their jobs as educators. About 20 percent of K-5 teachers do not incorporate career preparation in their lessons, with many more indicating they teach primary grades, and careers should not be part of discussion at the primary school level.
- Only 39 percent of school and district administrators agree that teachers in their schools feel confident integrating career content into their courses, and only 56 percent of teachers themselves are confident integrating career content into their courses.
- About 70 percent of parents who responded to the survey state that their students would benefit from more career-focused options in their schools; however, when educators are asked whether they think students and parents are interested in career-focused options, only 27 percent believe students are interested, and 24 percent believe parents are interested.

These projections and survey responses point clearly to a need for system-wide transformation of workforce education and training strategies and programs.

A Need for Greater Alignment and Attainment

To win the global competition for business investment and jobs, Ohio must develop and attract individuals with knowledge, skills, competencies and credentials that meet the needs of employers, especially those seeking to fill in-demand jobs. Of particular concern is the fact that Ohio currently has a substantial shortage of working-age adults with the degrees and credentials required to be successful in the labor market – in other words, a gap between employer expectations and worker capabilities.

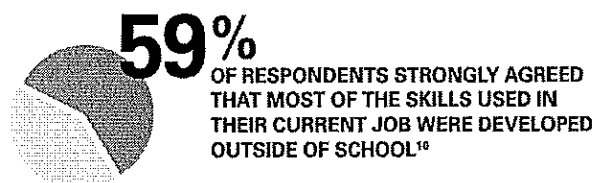
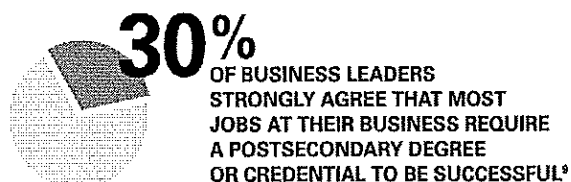
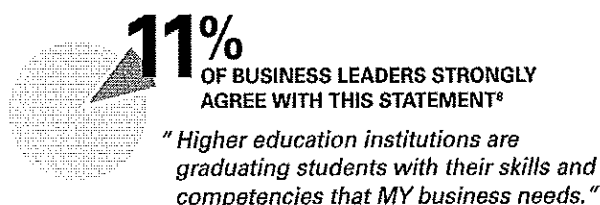
We face a large and serious challenge. According to the Georgetown Center on Education and the Workforce, 64 percent of Ohio jobs in 2020 will require postsecondary degrees or credentials.⁵ A new Lumina Foundation report shows, however, that just 43.2 percent of working-age adults in Ohio have a postsecondary certificate or degree,⁶ which is slightly below the nation's overall postsecondary attainment rate of 45.3 percent. To produce the number of highly skilled workers with postsecondary credentials required to meet the needs of employers, Ohio will need to produce, by 2025, an estimated 1.7 million more adults with high-quality postsecondary certificates or degrees.

It's a simple matter of supply and demand: Employers seek workers with specific knowledge, skills and competencies of value in the marketplace; unfortunately, employers tell us, many job-seekers lack those skills. This is true for large numbers of job-seekers entering the workforce, incumbent workers seeking to advance in their careers, and displaced workers whose skills may be outdated.

Consider, for example, that just 40 percent of employers believe recent college graduates are well prepared in skills critical for workplace success, including soft skills. Employers also give college graduates low scores for preparedness across learning outcomes. Students, on the other hand, think they are much better prepared for post-college success than employers do.⁷

Just 40 percent of employers believe recent college graduates are well prepared in skills critical for workforce success, including soft skills.

The disconnect between employer expectations and employee capabilities is not a new phenomenon. In 1998, for example, the Ohio Skill Gap Initiative, a joint venture of the Ohio Business Roundtable and the Ohio Department of Education, in cooperation with ACT, Inc., tested 14,000 Ohio high school graduates, using ACT's WorkKeys, and found just 1 in 14 or 7 percent ready for the workplace. In other words, we've been battling this issue for years, with unsatisfactory results.



Other more recent indicators of the expectations/capabilities disconnect include the following:

Gaps like these are widening. According to a 2016 McKinsey & Company study of more than 800 occupations, the continued growth of automation will drive substantial workforce changes over the next decade. Automation will likely result in very few occupations being eliminated entirely; however, it also likely will affect a portion of almost all jobs, in varying degrees. The McKinsey study attests that technologies available today could automate 45 percent of the activities that people are paid to perform and that about 60 percent of all occupations could see 30 percent or more of their component activities automated.¹¹

The December 2014 Workforce Integration Task Force Report concluded that Ohioans with disabilities often lack appropriate training opportunities to acquire the skills for in-demand occupations. The Task Force recommended the State of Ohio should ensure that in-demand occupational skills training be available and accessible to all Ohioans. In the same spirit, it is the intention and expectation of the Governor's Workforce Board that each of the training programs referenced and recommended throughout this report also be broadly accessible.

Strengthening Ohio's workforce development system is perhaps the most compelling economic imperative we face as a state. At stake is nothing less than Ohio's appeal to businesses across the globe seeking to locate, expand and invest – and Ohioans' future economic opportunity, prosperity and quality of life.

“... Based on current trends, there are potentially serious gaps in the supply of workers with the skills that will be needed to drive 21st century economies, and a growing supply of workers with more limited skills. Avoiding these imbalances (in both advanced and developing economies) and their consequences will require an unprecedented commitment to education and training.”¹²

Building on Recent Successes

Under Governor Kasich's leadership, Ohio has made great strides in ensuring that Ohio students have access to high-quality career preparation resources and that that schools, parents and students are properly incentivized to take advantage of those opportunities.

The recent partnership between the Ohio Department of Education and Opportunities for Ohioans with Disabilities (OOD) whereby OOD has embedded Vocational Rehabilitation Counselors into school districts will further the workforce system's ability to connect more students with disabilities to in-demand occupations, with guidance and counseling leading students to these career pathways.

Another example of committed collaboration to narrow Ohio's "talent gap" is the work of the Ohio Department of Education, the Ohio Department of Higher Education, and the Office of Workforce Transformation to convene stakeholders from K-12, higher education, workforce development, philanthropy and community partnerships to establish a formal **Ohio Attainment Goal 2025**:

"65 percent of Ohioans, ages 25-64, will have a degree, certificate or other postsecondary workforce credential of value in the workplace by 2025."

It's clear that parents, educators and the business community are strongly motivated to ensure that students are prepared for successful careers. They recognize the positive changes ongoing at the state level and appreciate efforts to create a seamless, aligned system where students are prepared for their career paths, whether those paths include college degrees, industry credentials, apprenticeships, military enlistment, or a combination.

There is much work to be done in terms of communicating and building resources to help families connect with pathways, help businesses connect with schools, and help teachers connect with strategies to prepare their students for careers. The recommendations contained in this report have been proposed to assist in making these connections.

It Won't Be Easy

We need to make sure every Ohioan has the knowledge and skills needed to succeed in the workplace. This is a critical, must-have outcome for our businesses as well as for members of the state's workforce.

This creates an imperative to work together as a state to make sure businesses clearly communicate their workforce needs. Businesses must help shape training by forming partnerships with education institutions and government at all levels; playing a meaningful role in the development of curriculum, credentialing programs and work-based learning experiences; and working with education and training providers to match students with appropriate work-based learning experiences to help those entering or transitioning within the workforce get a better feel for career opportunities available to them.

Conversely, education providers, workforce development organizations, labor organizations and others must find ways to meet those employer needs. These diverse stakeholders must collaborate to develop education and training programs that will ensure a workforce capable of quickly adapting to new and evolving business needs.

We need to change the perception of career technical education so more students see specialized skills training as a viable pathway to success in college or careers.

In broad terms, we need a workforce development system that is not only aligned with employer needs but also with the realities of modern life and modern students.¹³ To achieve that objective, we also will need to change the perception of career technical education so more students see specialized skills training as a viable pathway to success in college or careers.

The Road Ahead

How well positioned are we in Ohio to respond to the workforce training challenge we face?

A diverse set of dynamics impacts our state's workforce development system. Currently, job training in Ohio is fragmented. Career and training providers, such as Ohio Technical Centers and OhioMeansJobs Centers, typically operate as silos. The broad and complex array of users with diverse needs makes it difficult to document and communicate resources and results. On top of these obstacles, the complexity of multiple agencies (at national, state and local levels) trying to address these issues adds another layer of difficulty.

We know we need to operate as an integrated, coherent system. We know we need to view our education, training and retraining programs as a centralized resource balanced with diverse, regional needs – and to provide greater visibility for the opportunities available through that resource. We know we need better occupational data, and we need to work more collaboratively to develop programs that truly meet business needs.

And, finally, we know this work needs to be a priority.

The Board shares Governor Kasich's vision of an education and workforce training system that ensures we have access to lifelong learning and the ability and flexibility to succeed in 5 to 10 jobs in a lifetime.

We understand that America has become a "knowledge nation" – and that we are moving forward, not in reverse. We are no longer making things the way we used to. Today we are making things with technology as a partner in raising productivity – because productivity is where the high value and high wages are to be found.

Through OhioMeansJobs.com, we've had some success connecting available jobs to people entering the workforce; looking ahead, we need to do an even better job of providing our entering, incumbent and displaced workers with the knowledge and skills they need to succeed, which in turn is what will help our businesses succeed.

As Governor Kasich noted in issuing his call to action to the Governor's Executive Workforce Board, what's important in the end is the value you represent when you enter the workforce. In a knowledge economy, if you have skills, you win; if you don't, you lose.

The workforce training challenge we face is about the very essence of opportunity in this great country and our great state. If we don't succeed in this quest, we'll be denying Ohio and its citizens great opportunities to move forward in a significant ways.



Process Overview

Work-Group Structure

The Board began its work with an exercise to identify the major gaps and challenges that exist in Ohio's workforce system today. To focus the Board's efforts, the Office of Workforce Transformation summarized the key gaps/challenges and categorized them into four groups that cross the lifetime learning continuum.

The Board then worked in groups each to develop recommendations for how to address specific gaps/challenges. To make most effective use of Board members' expertise, these work sessions were facilitated by LeanOhio staff. Subject matter experts from relevant state agencies also were on site to provide technical guidance and clarification.

Large-group discussion and several rounds of review and revision resulted in a consensus report of high-impact, high-scalability recommendations. The OWT project team, working collaboratively with board members and subject matter experts, then identified tactical initiatives that can be deployed to achieve each of the Board's recommendations. The result was this report, entitled Building Ohio's Future Workforce.

Criteria for Recommendations

The following guiding principles directed the Board's work to identify, assess and prioritize proposed solutions:

- **Recommendations must be scalable.** The greater the capacity and potential reach of the proposed solutions, the more likely transformative change will result.
- **Recommendations must have significant and lasting impact.** Because resources are limited, solutions must deliver maximum value and pay substantial dividends.
- **Recommendations must use data and research to confirm assumptions and solutions.** The stakes are so high that proposed actions must be grounded in empirical evidence, not simply theory.
- **Recommendations must be cost/budget neutral.** Scarce public dollars require strategic prioritizing and responsible stewardship of those dollars.

Common Themes

During the Board's deliberations on actionable recommendations for creating a more effective, efficient workforce development system, several common themes surfaced that should be noted here, as they helped frame the Board's thinking and spanned most working group topics of discussion.

- **Adopt a broader system perspective.** Board members consistently spoke of the need to view workforce education and training across a lifelong continuum. The more fully aligned, coordinated and comprehensive the various system components are, the more successful we will be in designing resources that meet the wide variety of system stakeholder needs.
- **Communicate and collaborate.** Repeatedly throughout the Board's deliberations participants pointed to examples of stakeholders' failure to communicate clearly, frequently and constructively on matters of specific needs, concerns, resources and opportunities. Most of these discussions concluded that formalizing various partnerships was one way to overcome common obstacles to maintaining ongoing meaningful dialogue.
- **Compile and share best practices and promising practices.** All working groups, and virtually all Board members, noted the vital need to do a better job of identifying, compiling and sharing documented best practices and promising practices. It was widely felt by participants that many great programs and practices exist in Ohio, and that a lack of coordinated sharing is the only thing preventing broader use and benefits across the state.
- **Repurposing existing resources.** One of the stated criteria for the Board's recommendations was that each recommendation must be budget/cost neutral. While this sometimes proved challenging in the brainstorming and discussion, Board members embraced the spirit of that specific criteria and offered many examples of where existing resources might be repurposed for greater benefit.

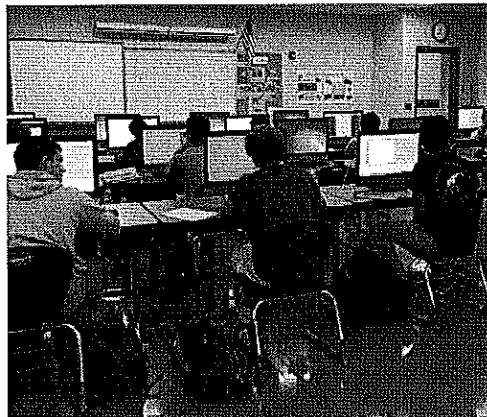
Recommendations

Problem Statement 1: A disconnect exists between school curricula and relevant, practical workplace skills, resulting in a gap between worker capabilities and employer expectations.

Recommendation 1A: Promote Local/Regional/State Collaboration

Promote collaboration of local chambers of commerce, regional economic development groups and JobsOhio with community colleges, Ohio Technical Centers and K-12 to align with the job demands of Ohio businesses.

- Require the Ohio Department of Higher Education, in collaboration with the Ohio Department of Education, to report annually to the Ohio General Assembly on Ohio's progress toward achieving the Ohio 2025 Attainment Goal of 65 percent of adult-age workers attaining affordable college degrees, industry certificates or other credentials of value to Ohio employers.
- Require the Ohio Department of Education and the Ohio Department of Higher Education to efficiently increase the articulation of career-technical education programs.
- Require the Office of Workforce Transformation to collaborate with JobsOhio to ensure that OWT strategies are closely aligned with specific occupations and competencies required by employers in JobsOhio's targeted industries.



Recommendation 1B: Require Schools to Offer Project-Based Learning

Require middle schools, high schools, community colleges, Ohio Technical Centers and universities to work with local businesses to offer project-based learning experiences that give students opportunities to solve authentic, real-world business problems.

- Require the Ohio Department of Education and the Ohio Department of Higher Education to work collaboratively with Ohio's major business organizations – Ohio Business Roundtable, Ohio Chamber of Commerce, Ohio Contractors Association, Ohio Manufacturers' Association, Ohio Council of Retail Merchants, NFIB-Ohio, and the Ohio Farm Bureau – to create a strategic plan for increasing project-based learning and develop professional development programs that address how to build authentic, real-world, project-based learning into the curriculum.

Recommendation 1C: Establish Regional Workforce Career Explorations and Counseling Collaborations

Establish regionally based Workforce Career Counseling Collaborations that make career counseling services available to middle school and high school students.

- Require the Ohio Department of Education, in coordination with the Ohio Department of Higher Education, to develop a Regional Workforce Career Counseling Collaboration model in which the JobsOhio Network, local chambers of commerce, local school districts, local businesses and others build county-level partnerships that provide career services to students. These services may include

job shadowing and internship experiences, career exploration activities, and problem-based curriculum developed around local employer needs. This will help ensure that students are placed in the best possible program, matched to their career interests and abilities, so they will be more likely to succeed. Washington County's Building Bridges to Careers program is a model of a collaborative program that provides robust career experiences to students in a cost-efficient manner by bringing together multiple school districts and employers.

Problem Statement 2: Educators are unsure of how to engage the business community regarding in-demand occupational needs, and businesses often are unclear about the best ways to share their workforce needs with educators and to engage them in identifying talent matched to businesses' needs and expectations.

Recommendation 2A: Increase Business Representation on Local School Boards
Increase efforts to establish and collaborate with local business and industry.

- Require local school boards to appoint three non-voting, ex officio members who represent local business interests.

Recommendation 2B: Require School Leader Engagement

Require school district superintendents and other district leaders to participate in local chambers of commerce and other business organizations and partnerships.

- Update current tools for evaluating school district superintendents to include engagement with area businesses as a performance metric.
- Revise Ohio's new school counselor standards to include engagement with businesses as a performance metric.

Problem Statement 3: Students do not have adequate opportunities for "work-based learning."

Recommendation 3A: Expand Business Engagement Opportunities

Increase business engagement opportunities with schools through student internships, co-ops, job shadowing, mentoring, tutoring, recognized apprenticeships and other opportunities for work-based learning.

- Promote and encourage the growth of successful programs such as Columbus's Christo Rey High School that integrate four years of rigorous college preparatory academics with four years of professional work experience through a "Corporate Work Study" model.
- Create a formalized "broker" position to help drive collaboration among local stakeholders, which could include local Chambers of Commerce and/or other economic development organizations.
- Require the Ohio Department of Education, in conjunction with the Governor's Office of Workforce Transformation and representatives from business organizations, to create an oversight body/process to review and update, annually, the approved industry-recognized credential list required for graduation.
- Encourage all school districts to review their Ohio Credit Flexibility plans to identify additional opportunities for integrating meaningful, work-based learning experiences and internships/co-ops. By connecting learning to real-world situations and future jobs, credit flexibility can increase students' interest in school and motivation to learn.

- Include work-based learning and post-graduation job placement metrics on the Ohio School Report Cards and require a balanced report card for college and career readiness.
- Align recognized pre-apprenticeship programs within Ohio's College Credit Plus program, add recognized pre-apprenticeship as a pathway to graduation, and add recognized pre-apprenticeship certificate attainment to the "Prepared for Success" report card measurement.
- Create awareness within the business community about subminimum wage laws applicable to students enrolled in bona fide vocational training programs.



Recommendation 3B: Encourage Teacher Externships

Increase externship opportunities for all teachers.

- Require teachers' Individual Professional Development Plans to include teacher externship experiences.
- Require Ohio's Professional Educator and Counselor License Renewal requirements to include CEU credits earned for teacher externship experiences.

Problem Statement 4: Parents and students lack awareness of non-four-year, postsecondary degree pathways. Persistent misconceptions and related stigmas have further limited exposure to these viable career options.

Recommendation 4A: Create an Annual, Statewide "In-Demand Jobs Week"

Create an annual statewide "In-Demand Jobs Week" to raise awareness among educators, students and parents of high-demand job openings, job requirements and job benefits.

- Require the Governor's Office of Workforce Transformation, in coordination with the Ohio Department of Education, the Ohio Department of Higher Education and the Ohio Department of Job and Family Services, to organize an In-Demand Jobs Week. Among the activities for this week would be in-demand job fairs or tours of companies that have in-demand occupations as a way to connect middle and high school students with prospective employers.
- Require the Ohio Department of Education to develop an "OhioMeansJobs-Ready Certificate" for high school students who demonstrate their work-readiness by successfully exhibiting to-be-determined work ethic competencies (such as teamwork, problem-solving, reliability, punctuality, etc.) validated by no fewer than three teachers and/or business mentors and attaining at least four objective competencies – including community service and technology – before graduation.

Problem Statement 5: Early exposure to career possibilities for parents and students is limited.

Recommendation 5A: Create an E-Information and Resource Sharing Tool

Establish a communication tool to share success stories for replication by education/training providers and to facilitate resource sharing among all stakeholders.

- Create “one-stop” web resources that are available during non-work hours or school hours, categorized by stage of life or by category (e.g., mentoring), providing state-level information for educators, families and communities, including information focused on career readiness skills and links to OhioMeansJobs.com for parents.
- Leverage the proposed sharing tool to provide resources and technical assistance for promising practices in disability inclusion through “Universal Course Design” – a set of strategies and practices that make courses more accessible for students, especially those who speak a primary language other than English, are not academically prepared, go to school part-time and lead busy lives, or have disabilities.
- Enhance and expand efforts to make students and families more aware of the practice tests for the ACT, SAT, WorkKeys and others that are available free of charge on OhioMeansJobs.com.

Recommendation 5B: Foster Mentoring Relationships

Leverage existing relationships and programs to expand formal and informal, evidence-based mentoring relationships.

- Incorporate mentoring practices in the state’s Quality Rating and Improvement System for early education providers.
- Incorporate drug prevention messaging in schools. Part of ensuring that children are career and college ready involves sharing the importance of staying drug-free. Start Talking! is an initiative that gives parents, guardians, educators and community leaders the tools to start the conversation with Ohio’s elementary, middle and high school students about the importance of living healthy, drug-free lives. Schools should incorporate Start Talking! or other drug prevention messaging where appropriate.

Problem Statement 6: Businesses report that entry-level employees lack basic work-readiness skills that could begin to be taught in primary education and throughout the education system and mentoring programs.

Recommendation 6A: Leverage Effective Practices

Improve leveraging of financial resources by reallocating funds to replicate existing programs that have demonstrated effective, measurable outcomes.

- Monitor new evidence-based curriculum and assessment packages (“High Scope” and “The Creative Curriculum”), which contain social and behavioral lessons and are being offered by the Ohio Department of Job and Family Services and the Ohio Department of Education to publicly funded childcare and primary education providers.
- Strengthen professional development for childcare providers, which already focuses on Approaches to Learning and Social/Behavioral standards, by linking these important standards to career readiness.



Recommendation 6B: Formalize Career Exploration Partnerships

Formalize partnerships among businesses, communities, government and families to share and explore information about careers and how to prepare for them.

- Award extra points to childcare providers seeking a 4-star or 5-star rating in Ohio's Quality Rating and Improvement System for participating in community partnerships that engage businesses in sharing and promoting careers and exploring the kind of knowledge and skills needed to be successful.

Recommendation 6C: Focus Early on Employability and Career Readiness

Integrate the mission of employability and college/career readiness beginning early in life.

- Include career readiness as a core component of the State of Ohio's mission and guiding principles for primary education and development.
- Require programs to embed work-readiness skills into their standards.

Problem Statement 7: Postsecondary institutions allocate scarce and valuable funds to student remediation. This directs resources away from core programs, drives up the cost of education, and delays graduation and entry into the workforce for students.

Recommendation 7A: Provide Transition Classes

Provide "transition classes" to high school students with the highest need for remediation but also a strong desire to move onto postsecondary, to provide the extra instruction they need to be career-ready or college-ready upon graduation from high school.

- Consider implementing a statewide program like the Tennessee SAILS model, which allows high school seniors to complete remedial work through a blended learning curriculum developed through K-12 and higher education collaboration. The program has showed impressive results in graduating more students college-ready.
- Build on the success of programs such as Jobs for Ohio Graduates in serving the most at-risk youth in our state by helping these young people stay in high school through graduation; pursue postsecondary education; and ultimately secure quality, entry-level jobs leading to career advancement opportunities.

Recommendation 7B: Expand Co-requisite Remediation

Expand co-requisite remediation by allowing students in need of remediation to take credit-bearing courses, with extra support, enabling them to graduate sooner.

- Promote scalable expansion of co-requisite remediation at all of Ohio's public colleges and universities such as Wright State University and Lorain County Community College.
- Create more gateway mathematics and English courses that align to career goals and integrate workforce development and career development objectives such as programs at Rhodes State College (integrating career services in the school's Developmental Writing and English Composition courses) and Stark State College (developing alternative co-requisite remediation strategies and models for developmental courses in mathematics through the school's participation in the Ohio Mathematics Initiative).

Recommendation 7C: Invest in Early Redirection

Redirect students who are not progressing beyond remedial courses after a defined period of time to alternative pathways, with job-driven financial aid.

- Continue to grow programs that support early student career decision-making such as the successful collaboration between Shawnee State University, Southern State Community College and the Scioto County Career Technical Center. The Workforce Career Counselors proposed in Recommendation 1C would play a vital role in directing students to the right programs early on so remediation would not be necessary.

Problem Statement 8: Adult retraining programs are not widely known, often duplicative, not easily accessible (time/location), and reactive (after job loss has occurred).

Recommendation 8A: Create a State-Level Data Analytics Infrastructure

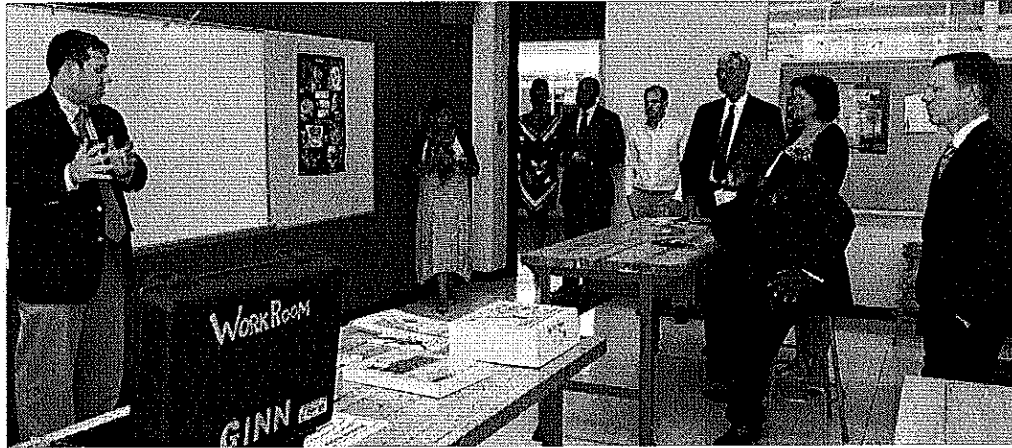
Enhance the existing, highly disjointed, state-level data analytics infrastructure to better coordinate work throughout the system and focus strategic initiatives on in-demand jobs and careers that are actionable on a local level.

- Enable state agencies to share data more efficiently, allowing providers to deliver a holistic approach to a jobseeker.
- Expand OhioMeansJobs.com capabilities by offering dynamic, interactive career pathways to middle school students, high school students and adult jobseekers.
- Utilize real-time demand and supply data compiled by the Ohio Department of Higher Education in fulfillment of obligations associated with State Workforce and Education Alignment Project (SWEAP) grants for aligning in-demand occupations with college curriculum and guiding jobseekers to employment opportunities for which they are qualified.
- Expand the number of in-demand occupations, as determined by the Governor's Office of Workforce Transformation, currently mapped by region and accessible via the OhioMeansJobs.com Workforce Supply Tool, to the full listing of in-demand occupations.
- Require the Governor's Office of Workforce Transformation, in conjunction with the Ohio Department of Job and Family Services, to conduct a biennial survey of in-demand occupations in Ohio.
- Require the Ohio Department of Education and the Ohio Department of Higher Education to establish design teams that leverage existing industry-led workforce partnerships to identify emerging skill needs based on predictive as well as real-time data analytics, and recommend innovations in education and training that respond to these trends.

Recommendation 8B: Enhance Ohio's Career Transition & Training Delivery System

Create a more comprehensive, integrated, career transition and training delivery system that assists jobseekers in getting started on a career pathway, delivering short-term, non-credit adult training that integrates industry-recognized credentials, is built upon dedicated career counseling/coaching services, and positions jobseekers for moving on to the next steps in their career pathway.

- Require the Ohio Department of Higher Education to collaborate with key sectors in Ohio's high-demand industries as well as public colleges, universities and Ohio Technical Centers to develop and implement strategies such as prior learning assessment that support increased attainment of postsecondary credentials by adults over age 25 for careers in in-demand jobs.
- Consolidate adult education programs currently within the Ohio Department of Higher Education and Ohio Department of Education into one agency to achieve greater coordination and results.
- Consolidate funding for Adult Education programs to allow for greater flexibility among programs.
- Require Adult Basic Literacy providers to apply for eligibility in the Workforce Inventory of Education and Training No. 16-02 with the Ohio Department of Job and Family Services to coordinate training services that focus on providing short-term certifications for those who fall below postsecondary aptitudes.
- Require ABE for adults who score below a 6th-grade level in reading and/or math on college and training program placement tests and accelerate learning that supports career pathways to in-demand jobs by setting state-level policies allowing co-enrollment in adult workforce training programs (i.e., career tech and adult diploma programs).
- Rebrand Ohio's public libraries as "Continuous Learning Centers" that serve as hubs for information about local in-demand jobs and relevant education and training resources. Additionally, bolster the Ohio Digital Library's online education resources to provide more accessible training materials to adult learners.
- Require OhioMeansJobs Centers to enter into memorandums of agreement with public libraries to facilitate collaboration and coordination of workforce development programs.
- Require uniform intake forms for adult training programs funded by the Workforce Innovation and Opportunity Act.
- Require the Ohio Department of Job and Family Services, in coordination with the Ohio Department of Education and the Ohio Department of Higher Education, to build an interactive portal within OhioMeansJobs.com that provides an automated referral service matching the job training needs of Ohio's businesses with training providers. This information would be made available to Career Technical Education, Ohio Technical Centers, and community colleges interested in bidding on providing the requested training services. Training providers who meet the needs outlined by Ohio businesses would be given priority access to the state's Workforce Revolving Loan Fund.
- Assess the impact of pilot programs that assist eligible unemployed and underemployed adults in overcoming employment barriers to the education, training and support resources they need to become skilled workers pursuing career and wage pathways – and determine feasibility of scaling up the program across Ohio.
- Encourage improvements to existing programs to increase their availability to individuals with disabilities and require that all newly developed programs are accessible to individuals with disabilities through reasonable accommodations.



Recommendation 8C: Foster a Statewide Learning Culture

Foster a statewide “learning culture” that is responsive to a dramatically changing workplace and promotes and supports lifelong learning.

- Require the Ohio Department of Job and Family Services to scale up the Work Ready Communities initiative to state level through a statewide competition among OhioMeansJobs Centers, driving up the number of communities across Ohio that have conducted ACT WorkKeys analysis and aiding job seekers and employers alike with information that will secure better employer-employee matches and drive economic growth.
- Create incentives – i.e., reduced sentences – for eligible incarcerated individuals in Ohio to receive their high school equivalency certificates.
- Require the Ohio Department of Higher Education to compile an inventory of non-credit certificate programs at Ohio colleges, universities and Ohio Technical Centers, and redirect state funding for programs that align with in-demand jobs and integrate industry-recognized credentials, to support adult learners in acquiring the skills needed for success in in-demand jobs.
- Expand eligibility of the Ohio National Guard Scholarship fund to include apprenticeship and short-term, in-demand certificate programs.
- Require the Governor’s Office of Workforce Transformation, the Ohio Department of Job and Family Services and the Ohio Department of Higher Education to promote Western Governors University curriculum and capabilities, as well as other competency-based training resources in areas that align with Ohio’s in-demand occupations, for working adults with some college or no degree and to employers seeking educational opportunities for their employees.
- Encourage continuous learning by offering online training services, such as Udacity, and shorter-term “boot camp” trainings to quickly respond to the needs of businesses.

Problem Statement 9: Promising practices throughout the state are inconsistently implemented.

Recommendation 9A: Develop methods/mechanisms for identifying, compiling and sharing best practices.

Continue to develop the Governor’s Office of Workforce Transformation’s website and social media venues in an effort to create awareness around promising practices.



A United Effort to Create a Brighter Future

Building Ohio's future workforce will be a major undertaking. It will require unwavering commitment, fresh new ways of thinking, and above all, unprecedented levels of collaboration among stakeholders. The pace and magnitude of technological change, along with the pressures and opportunities of a knowledge-based global economy, leave us with no other viable option.

If there is one thing the work of the Governor's Executive Workforce Board has revealed again and again, it's this: Businesses and educators must communicate with each other more often, more clearly and more candidly about their needs and expectations. Collaboration will be the key -- to creating economic opportunity for our youth and adult workers, to strengthening the competitiveness of Ohio businesses, and to spurring economic growth and prosperity for all.

Governor Kasich charged the Board to "Identify ways to prepare and continuously retrain Ohioans of all ages for the jobs of today and tomorrow." We have embraced the Governor's charge, and we look forward to the next step in strengthening our state's workforce development system -- i.e., incorporation of our proposed tactical options into the 2018-19 Executive Biennial Budget. We believe our recommendations will help ensure that Ohio businesses have access to a skilled and productive workforce, and that any improvements to the workforce development system will have business needs at the forefront.

We believe our recommendations will help ensure that Ohio businesses have access to a skilled and productive workforce, and that any improvements to the workforce development system will have business needs at the forefront.

Urgent action is needed for Ohio to thrive, and not merely survive, in the brave new world of global competition, technological advancement, manufacturing automation and lifelong learning. We simply cannot afford to delay.

References

1. Carl Benedikt Frey and Michael A. Osborne, *The Future of Employment: How Susceptible Are Jobs to Computerisation?*, September 17, 2013.
2. Cathy N. Davidson, co-director of the annual MacArthur Foundation Digital Media and Learning Competitions, quoted by Virginia Heffernan, "Education Needs a Digital-Age Upgrade," *The New York Times*, Aug 7, 2011.
3. *Creative Destruction Whips Through Corporate America*, www.innosight.com, Feb 2012.
4. Ohio Department of Education
5. Georgetown University Center on Education and Workforce. *Recovery: Job Growth and Education Requirements Through 2020*. June 2013. The 64 percent figure includes not only jobs requiring postsecondary certificates or higher, but also jobs requiring "some college."
6. Lumina Foundation. *A Stronger Nation*. 2016.
7. Hart Research Associates, "Falling Short? College Learning and Career Success: Selected Findings from Online Surveys of Employers and College Students," 2014.
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9. Gallup-Lumina Foundation, "The Lumina Foundation Study on the American Public's Opinion on Higher Education: What America Needs to Know About Higher Education Redesign," 2014.
10. Microsoft, Pearson, Gallup, "21st Century Skills and the Workplace," 2013.
11. McKinsey & Company, "Where Machines Could Replace Humans – And Where They Can't (Yet)," July 2016.
12. McKinsey & Company, "The World at Work: Jobs, Pay and Skills for 3.5 Billion People," 2012.
13. U.S. Department of Labor Blog, "A Joint Imperative to Strengthen Skills," September 11, 2013.

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Sandusky County and
Portions of Seneca County

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Bill Reineke
State Representative

Committees
Government Accountability and
Oversight – Vice Chair
Finance and Appropriations
Financial Institutions, Housing
and Urban Development
Ways and Means
Executive Appointments
Governor's Executive Workforce
Board – Board Member

December 5, 2017

Dear Workgroup Members:

Please accept my apology for being unavailable for tonight's meeting, however, I wanted to express my firm belief that option 4, the "Career Tech Program Pathway", should be made permanent.

I hope that before any decisions are made, regarding graduation requirements, that the recommendations of the Governor's Executive Workforce Board made in our "Future of Workforce" report are considered. We can no longer tolerate low graduation rates, high rates of remediation, and significant shortages of qualified, work-ready students.

The continuity of promoting career readiness must be maintained, which is what the Career Tech Program Pathway does. Furthermore, I have strong feelings that before reconfigurations are made to the current graduation requirements, we must address the major issue of school district's not even knowing there are three core pathways to graduation (let alone the 5 available for 2018).

Further thoughts will be reflected after follow-up discussions with the Director of the Governor's Office of Workforce Transformation.

Thank you for your consideration.

Sincerely,

Bill Reineke
Bill Reineke

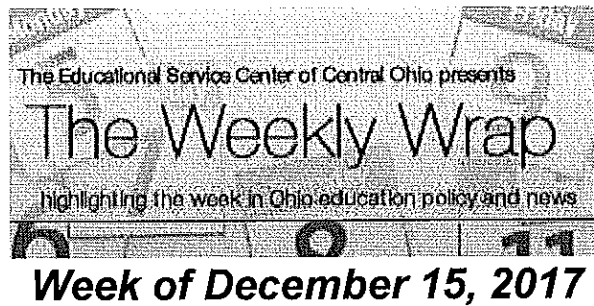
CC: Director Ryan Burgess
Governor's Office of Workforce Transformation

From: Joseph Weitz

Sent: Friday, December 15, 2017 10:01 AM

Subject: Weekly Wrap 12/15/17 - A service of the ESC of Central Ohio - Testing Cuts, Graduation Requirements Recommendations

Connect with us!



Please let Joe know if you have questions, requests, or would like to be added to the distribution list. Thank you.

(NOTE: The next Wrap will be sent the week of January 5th.)

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Leadership

OHIO LEGISLATION UPDATE
House Bills
Senate Bills

FEATURED ITEMS

STATE BOARD OF EDUCATION RECOMMENDS TESTINGS CUTS, MAY BACK EXTENSION OF NEW DIPLOMA OPTIONS –

At its monthly meeting this week, the State Board of Education voted and approved two resolutions recommending that Ohio eliminate a number of state tests, including the English Language Arts I end-of-course exam, the WorkKeys Job Skills Assessment, and any other assessments developed solely to meet state requirements of teacher evaluations. The Board also discussed graduation requirements for the Class of 2019 and beyond, and appeared to reach consensus on a plan to recommend that the additional graduation options be extended to the Classes of 2019 and 2020, likely with a few changes. The additional graduation options for the Class of 2018 were passed into law as part of the budget bill (HB49). The Board hopes that such a plan would provide time for educators and policymakers to develop a new system of graduation requirements for future classes after 2020.

School Board OKs Testing Cuts, Likely to Back Extension of New Diploma Options to 2020

- Leadership and members of the State Board of Education appeared to reach consensus Tuesday on a plan to recommend the classes of 2019 and 2020 be allowed to use the additional options for high school graduation created for the class of 2018, though a few tweaks are possible. But many on the board expressed hope for ultimately moving to a much different system of determining how students qualify for a diploma

Tests Should Be Cut Back Further, State School Board Tells Ohio Legislature – Cleveland Plain Dealer

- The state school board is asking the Ohio legislature to wipe out three items that add a testing burden to teachers and students -- the high school English I exam WorkKeys tests for some career training students and requirements that some tests be given just to evaluate teachers

Ohio's Test Score Graduation Requirements Could Be Eased for Classes of 2019 and 2020 – Cleveland Plain Dealer

- After debate the last few months, board members now want to extend the same exemptions for the classes of 2019 and 2020 that were added for the class of 2018

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OHIO

Central Ohio Schools

COLUMBUS CITY SCHOOLS

Several Columbus Educators Apply for School Superintendent – Columbus Dispatch

- Columbus City Schools has released the names of 19 applicants to be the district's next superintendent

State Board Committee Approves Waiver for Columbus Africentric School – Hannah

- The State Board of Education's Educators and Student Options Committee Monday unanimously approved a waiver that would allow a Columbus college-prep school to begin hand-picking a portion of its students, as opposed to a random lottery process

DELAWARE CITY SCHOOLS

DCS Board Approves 2018-19 Calendar, Change Orders – Delaware Gazette

- The Delaware City Schools Board of Education approved the 2018-2019 school calendar and a number of change orders at its board meeting Monday night

DUBLIN CITY SCHOOLS

School District Looks at Ballot to Ease Overcrowding – This Week

- As Dublin City School District deals with district-wide capacity challenges, the staff is recommending that the district stays the course in considering a November 2018 ballot issue

GROVEPORT MADISON LOCAL SCHOOLS

Groveport Madison Establishes Athletic Field Maintenance Fund – Columbus Messenger

- Though the new \$750,000 synthetic turf playing surface at Groveport Madison High School's Cruiser Stadium was installed just last summer, the Groveport Madison Board of Education is planning for the day in the future when it will need to be refurbished

HILLIARD CITY SCHOOLS

Feeder Schools Simplify Hilliard's Sixth-Grade Attendance Boundaries – This Week

- New attendance boundaries for Station and Tharp sixth-grade schools are in place for the next school year. The changes are necessary because of the 2018 opening of the new Memorial Middle School adjacent to Bradley High School

MARYSVILLE SCHOOLS

Schools, City Impasse Stalls Cook's Pointe Roadway – Marysville Journal-Tribune

- The city may have to hold off on building a road between Routes 31 and 4 after Marysville Schools expressed distaste for an update to the Cook's Pointe tax increment financing (TIF) district

OLENTANGY LOCAL SCHOOLS

Two Olentangy Principals Resign, Interims Named – Delaware Gazette

- When the calendar turns the page to 2018, the Olentangy Local School District will be without the services of two of its current principal

REYNOLDSBURG CITY SCHOOLS

After Recount, Baker, Barga Win Seats on BOE, Council 12/0 This Week

- A recount of votes cast Nov. 7 in two Reynoldsburg races that were too close to call on election night produced no changes in the outcomes

SOUTH-WESTERN CITY SCHOOLS

District Officials Receive Salary Increase – Columbus Messenger

- At its Dec. 11 meeting, the South-Western City Schools board of education unanimously approved a 2 percent increase in the salaries of Superintendent Dr. Bill Wis and Treasurer Hugh Garside

UPPER ARLINGTON CITY SCHOOLS

2Visionary' Leadership Earns Honor for UA's Imhoff – This Week

- Upper Arlington schools Superintendent Paul Imhoff has been named 2018 Superintendent of the Year by the Buckeye Association of School Administrators

WORTHINGTON CITY SCHOOLS

Community Members Helped Outline Facilities Plan – This Week It's Worth It

- Trent Bowers, superintendent of Worthington City Schools, writes that the work of the community-led task force created for the purpose of master facilities planning for Worthington Schools has concluded

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Ohio Department of Education/State Board of Education

Testing, Graduation Debates on Tap for School Board – Hannah

- The State Board of Education will continue discussions next week on whether and how to intercede for class of 2019 students at risk of not graduating on time, and could recommend cuts to state testing after months of debate

School Board Discusses Ways ESSA Plan Could Change Report Card – Hannah

- The State Board of Education's Accountability and Continuous Improvement Committee discussed Monday possible changes to two sections of Ohio's report cards for local schools, one of which could show up on report cards for the current year, the other up for long-term discussions and contingent on federal approval of Ohio's plan for implementing the Every Student Succeeds Act (ESSA)

School Board Could Ease Standard Poised to Push Colleges Out of Diploma Program – Hannah

- The State Board of Education appears likely to grant more leniency to providers in the 22+ Adult Diploma Program after hearing last month from the organization that runs programs at a few community colleges about the program's first-year struggles

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- After debate the last few months, board members now want to extend the same exemptions for the classes of 2019 and 2020 that were added for the class of 2018

State Report Cards Need to Be Re-Examined, Says State School Board Member Lisa Woods – Cleveland Plain Dealer

- State school board member Lisa Woods wants the state to re-examine and overhaul its report cards for schools and districts, calling them too complicated and not useful for schools or families

State Launches Early Learning Portal – Hannah

- Ohio debuted a new online resource this week for parents and teachers of preschool-age children to help support early learning and literacy development. Most of the materials available at the INFOhio Early Learning portal are free, with a few requiring a "minimal" fee

McKinney-Vento Guidance for Homeless Students Updated – ODE

- The Ohio Department of Education updated McKinney-Vento Guidance for homeless student liaisons to uphold rights and ensure educational stability for these students. The guidance provides clarification that will help districts navigate the McKinney-Vento law. It includes suggestions for district support systems for students who are homeless

Model Policy Can Help Align Local Policies with HB410 Requirements – ODE

- In June, the State Board of Education adopted a model policy for violent, disruptive or inappropriate student behavior, including excessive absences. It stresses prevention strategies and alternatives to suspension or expulsion. Districts can adopt all or parts of the model policy according to their needs. They also may use the model policy when updating their local policies to align with House Bill 410 requirements

Special Education Profile Public Summary – ODE

- 2016-2017 SPECIAL EDUCATION PROFILE (Based on 2015-2016 data)

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Ohio Education & Public Policy

'Tsunami' of Job Disruption Coming, Kasich, Alphabet Chairman Warn – Columbus Dispatch

- Kasich again called for a "complete re-do" of kindergarten through 12th-grade education and higher education, saying both must more closely work with business leaders to align what they teach with the skills students will need to prosper in the jobs of the future

Kasich Urges Workforce Board to Reach Out to Schools on Job-Readiness Skills – Columbus Dispatch

- Kasich on Tuesday urged the board to continue its efforts to bring about the changes needed to ensure students can thrive in a rapidly-changing workplace where technology threatens to wipe out many jobs

Ohio Report Card Reviews Say Make Them Simpler – State Impact Ohio

- Two national education advocacy and research groups say Ohio's school report cards need to be simplified so that parents can more easily use the information they hold

New State Attendance Law Could Be Trouble for Sick Students – Canton Repository

- Under House Bill 410, which took effect in April, public school students in Ohio cannot miss more than 38 hours (roughly six days) of school in a single month or 65 hours (roughly 10 days) in a year — even if they have a valid doctor's excuse. If they do miss that much school, they will be labeled excessively absent

Lack of Access to Broadband Affects Personal, Health, Education, Economic Aspects of Life – Hannah

- Five witnesses appeared before the House Finance Committee Tuesday morning on HB378 (R. Smith-Cera), which would create the Ohio Broadband Development Grant Program, appropriating \$50 million a year for two years

House Finishes Work for Year with Action on 16 Bills – Hannah

- House Speaker Cliff Rosenberger (R-Clarksville) outlined some of his priorities in the new year, including addressing the opioid epidemic and helping those affected who may not have gotten the attention they need, and congressional redistricting. He said unemployment compensation reform also remains a priority, but they have not moved it as Rep. Kirk Schuring (R-Canton) continues to work on tweaks to his HB382 and listens to concerns from labor and the business community

Senate Passes 'Christmas Tree' Bill – Hannah

- Obhof said he expects a congressional redistricting resolution to be introduced in early January and to be passed by the end of the month with bipartisan support

Educators Slam KRA Mandates at Deregulation Bill Hearing – Hannah

- Several kindergarten teachers and school administrators blasted the state requirement to administer the Kindergarten Readiness Assessment (KRA) on Wednesday, telling the Senate Education Committee it's a waste of time and hampers their ability to effectively teach children

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Ohio Schools

Ohio Schools Dish Out Suspensions, Other Discipline at Wildly Different Rates – Cleveland Plain Dealer

- School and school districts in Ohio suspend and discipline students at wildly different rates, a Plain Dealer review of statewide discipline data shows, with some taking action five, ten or even more than 20 times as much as the state average

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Cyber Charters Continue to Struggle: A State-by-State Look at Reports of Trouble – EdWeek

- From California to Ohio to Nevada, cyber charter schools often struggle mightily to graduate students and they frequently clash with state regulators over their academic performance and financial management. Nevertheless, the niche sector of K-12 schooling continues to expand across states even in the face of such poor results

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Ohio Postsecondary & Workforce Development

School Board Could Ease Standard Poised to Push Colleges Out of Diploma Program – Hannah

- The State Board of Education appears likely to grant more leniency to providers in the 22+ Adult Diploma Program after hearing last month from the organization that runs programs at a few community colleges about the program's first-year struggles

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Ohio Local Government

Auditor: Local Governments Feeling Greater Fiscal Stress – Columbus Dispatch

- The finances of Ohio's city and county governments are becoming increasingly wobbly, according to a report issued Tuesday by state Auditor Dave Yost

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Ohio Reports

State Teacher Policy Yearbook 2017 – National Council on Teacher Quality

- NCTQ's bi-annual 2017 State Teacher Policy Yearbook grades states on how well their programs and policies raise the quality of the teachers in their schools. The 2017 Yearbook evaluates states against nine policy areas, with this year's edition including, for the first time, information to reflect teacher diversity initiatives, principal evaluation and support systems, and state support for teacher leadership opportunities. For all 50 states and the District of Columbia, NCTQ produces a customized summary that provides state policy strengths and opportunities for improvement
- See the Ohio summary [here](#)

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NATIONAL/WORLD

Federal & US Department of Education

A Commentary by Betsy DeVos: 'Tolerating Low Expectations for Children With Disabilities Must End' – EdWeek Commentary

Federal Government Switches Sides, Joins Argument for Striking Down Mandatory Dues in Janus Case – The 74

- The Trump administration has weighed in against continuing mandatory union dues for public workers, a shift in the federal government's position ahead of upcoming Supreme Court arguments in the much-watched Janus case

Trump Taps Ex-Florida Chief, Lt. Governor for Top K-12 Post under DeVos – EdWeek

- President Donald Trump has tapped Frank Brogan, who served as former Florida Gov. Jeb Bush's lieutenant governor, as assistant secretary of elementary and secondary education, the top post at the Education Department overseeing K-12 policy

FCC Dismantles 'Net Neutrality' Policy, and K-12 Schools Await Impact – EdWeek

- The Federal Communications Commission voted today to dismantle a policy designed to protect "net neutrality," in a dramatic shift that has roiled the public and carries uncertain implications for schools

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Education Policy & Finance

Planning for Progress: States Reflect on Year One Implementation of ESSA – Center on Education Policy

- Based on a fall 2017 survey of officials from 45 state education agencies, this report highlights early state efforts to implement the Every Student Succeeds Act. The report highlights states' views on ESSA's shift in control from the federal government to states and school districts regarding accountability and school improvement activities; stakeholder involvement in state plan development; state capacity to implement ESSA requirements; and the U.S. Department of Education's assistance in implementing ESSA. The report also addresses the impact of the proposed elimination of Title II-A funding, and support among states for a federal private school voucher program using ESSA funds

Many State ESSA Plans Are 'Uncreative, Unambitious,' Analysis Finds – EdWeek

- The two-year-old Every Student Succeeds Act was supposed to free states up to go off in bold, new directions on K-12 policy. So did state plans—all of which have been turned into the U.S. Department of Education—live up to that promise?

Layoffs Will Hurt ESSA Implementation, State Education Leaders Say – EdWeek

- State education chiefs say in a recently released survey that their departments lack sufficient funding, staffing or expertise to carry out one or more key requirements of the Every Student Succeeds Act

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Teacher Effectiveness

Making Teacher Recertification Meaningful – EdWeek Special Report

- This special report takes a hard look at recertification, posing questions about how it could be strengthened to support teachers better. The stories include an overview of the diverse provider landscape, perspective pieces by current and former teachers, and profiles of states thinking about how to innovate their license-renewal systems

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Digital Convergence

AI Accelerates in K12 – District Administration

- Until recently, the quality of classroom instruction relied almost entirely on a teacher's resourcefulness, motivation and intelligence. Soon, it will also depend on artificial intelligence—with lessons based more on what students need to learn than on traditional methods of instruction

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Tech Infrastructure

Why, and How, Warranties Should Guide EdTech Purchasing – eSchool News

- Determining the best bulk edtech purchases for long-term school use should start with warranties

40 Most Popular Ed-Tech Tools in K-12 Identified in New Analysis – EdWeek

- The study—conducted by Lea(r)n Inc., a company that operates a management system that organizes, streamlines, and analyzes ed-tech utilization—found that the top three tech products accessed in schools via Google's Chrome browser are Google Docs, YouTube, and Google Drive

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Charter Schools

Cyber Charters Continue to Struggle: A State-by-State Look at Reports of Trouble – EdWeek

- From California to Ohio to Nevada, cyber charter schools often struggle mightily to graduate students and they frequently clash with state regulators over their academic performance and financial management. Nevertheless, the niche sector of K-12 schooling continues to expand across states even in the face of such poor results

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School Improvement

State Role in Incubating School Improvement Networks – NASBE

- States, districts, and schools across the country are forming “networked improvement communities” to address problems of practice, make changes based on data, and make connections across schools. These networks build capacity to improve schools, ensure effective change processes are in place, and make it possible to bring innovations to scale. A new NASBE policy update explores how statewide networked improvement communities work and how state boards of education can nurture them

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Diversity, Equity & Inclusion

Study: Black, Latino Preservice Teachers Demonstrate More Multicultural Awareness – Education Dive

- Districts looking to hire teachers who have the skills to work with an increasingly diverse student population might want to begin recruiting young people working in summer camps, after-school programs and other